

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	Intelligent separated call wristband
Test Model:	D13
Sample ID:	HC-C-202502-0097-01-02#
Environmental Conditions	
Temperature:	24.5℃
Relative Humidity:	47%
Test Voltage:	DC 3.8V
Test Engineer:	Lily Zhang
Note: For a more detailed features description, please refer to the report TBR-C-202502-0097-31 The report only show the worst case data.	

Contents

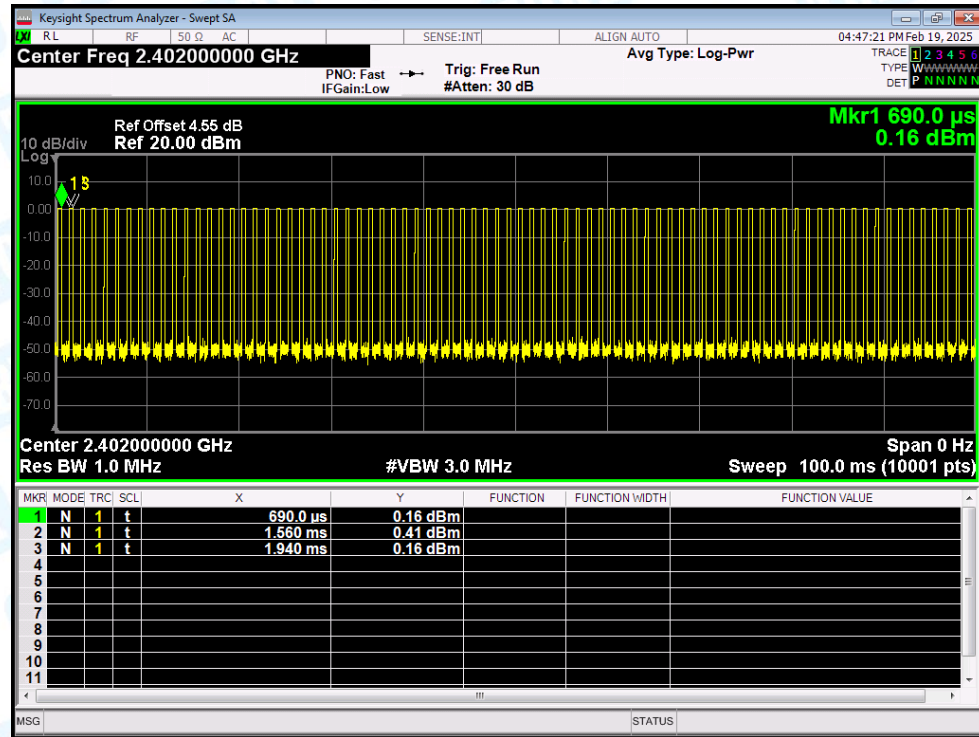
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1.Duty Cycle

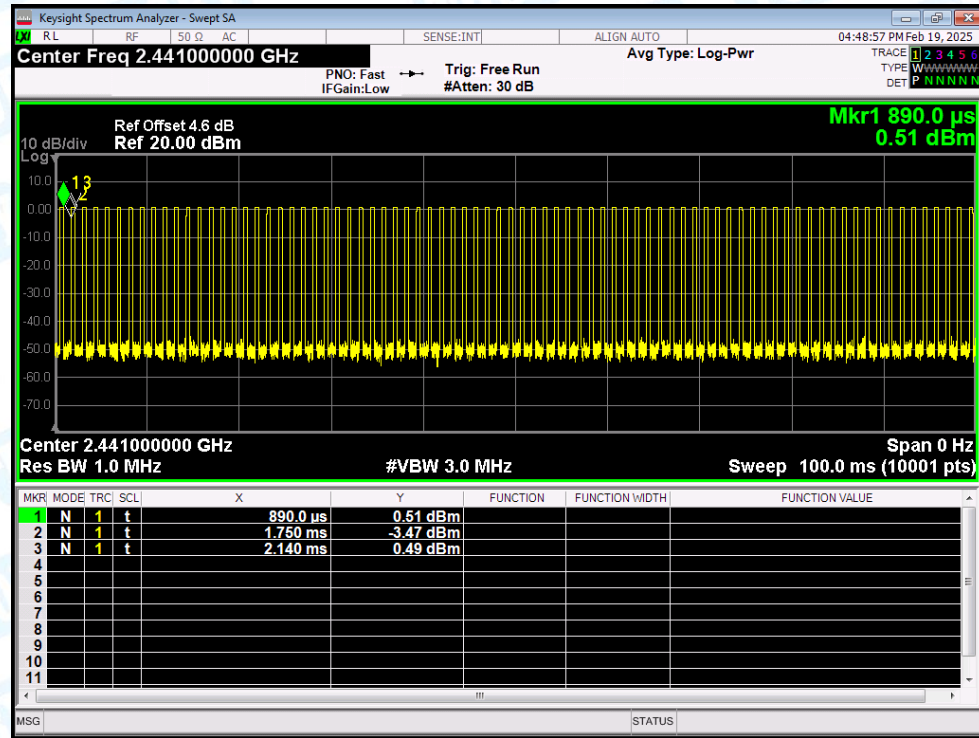
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	1-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2441	Ant1	32	4.95	2.5
NVNT	2-DH1	2480	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2480	Ant1	32	4.95	2.5

Test Graphs

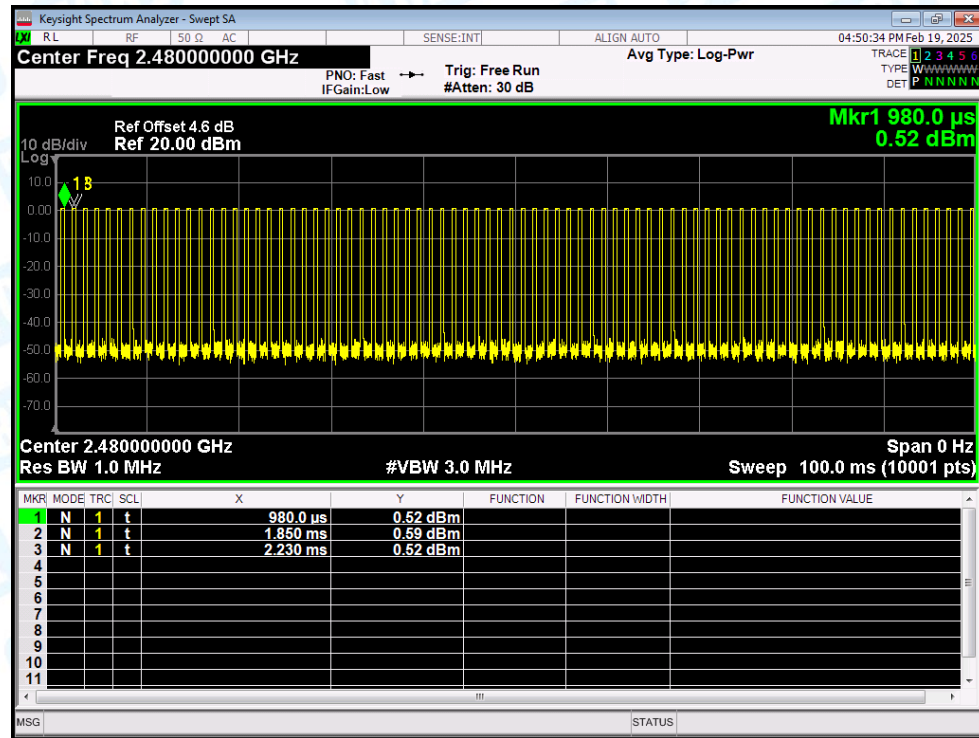
Duty Cycle NVNT 1-DH1 2402MHz Ant1



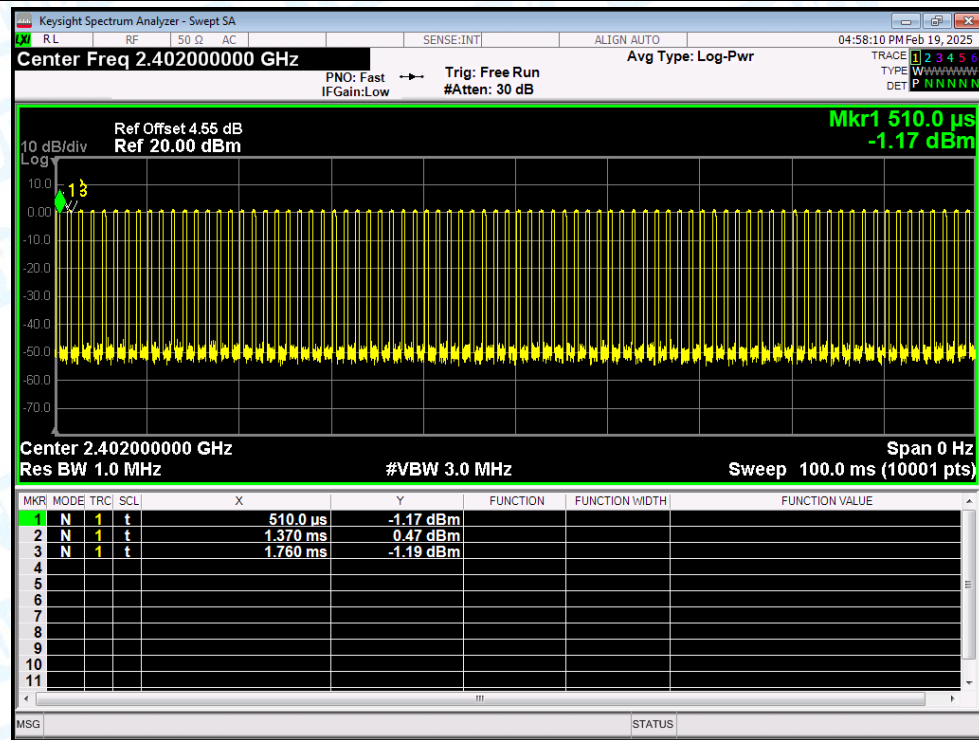
Duty Cycle NVNT 1-DH1 2441MHz Ant1



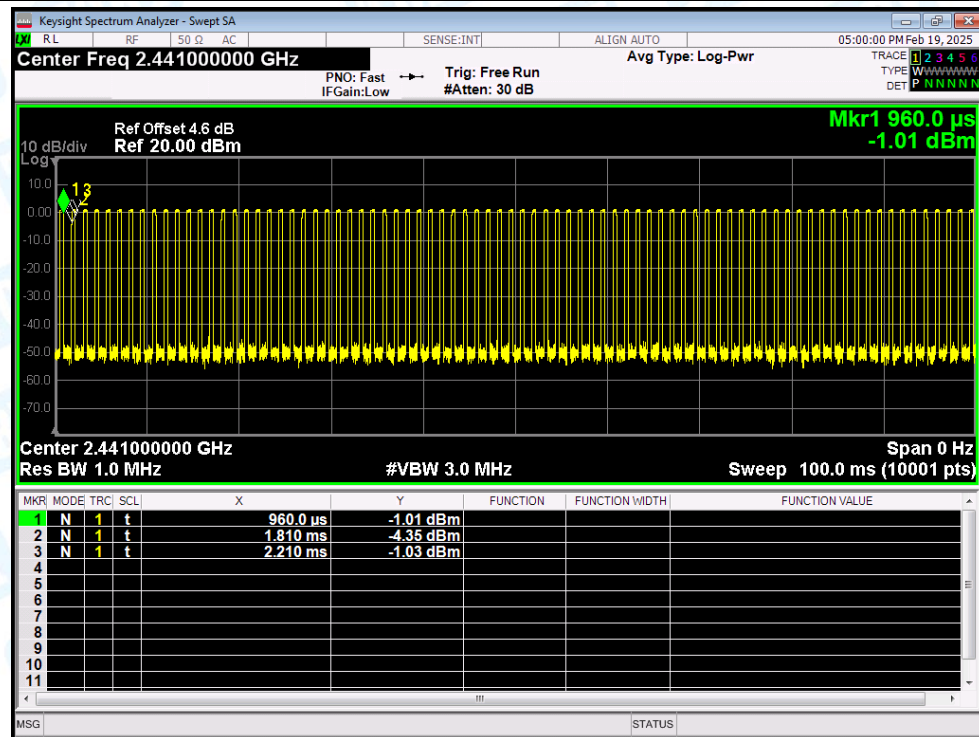
Duty Cycle NVNT 1-DH1 2480MHz Ant1



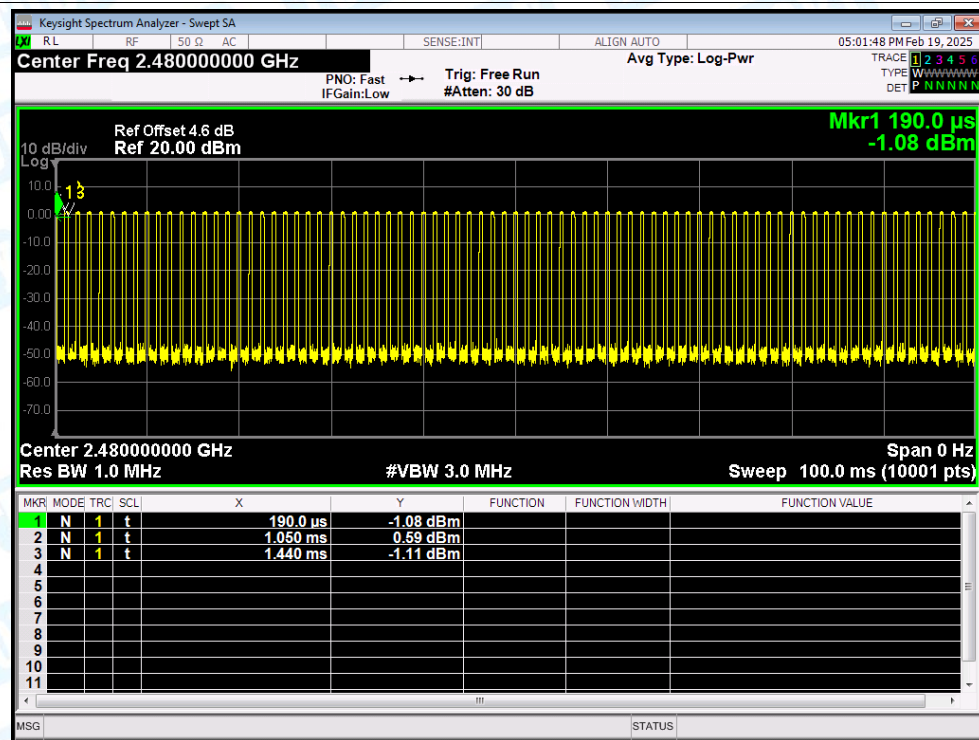
Duty Cycle NVNT 2-DH1 2402MHz Ant1



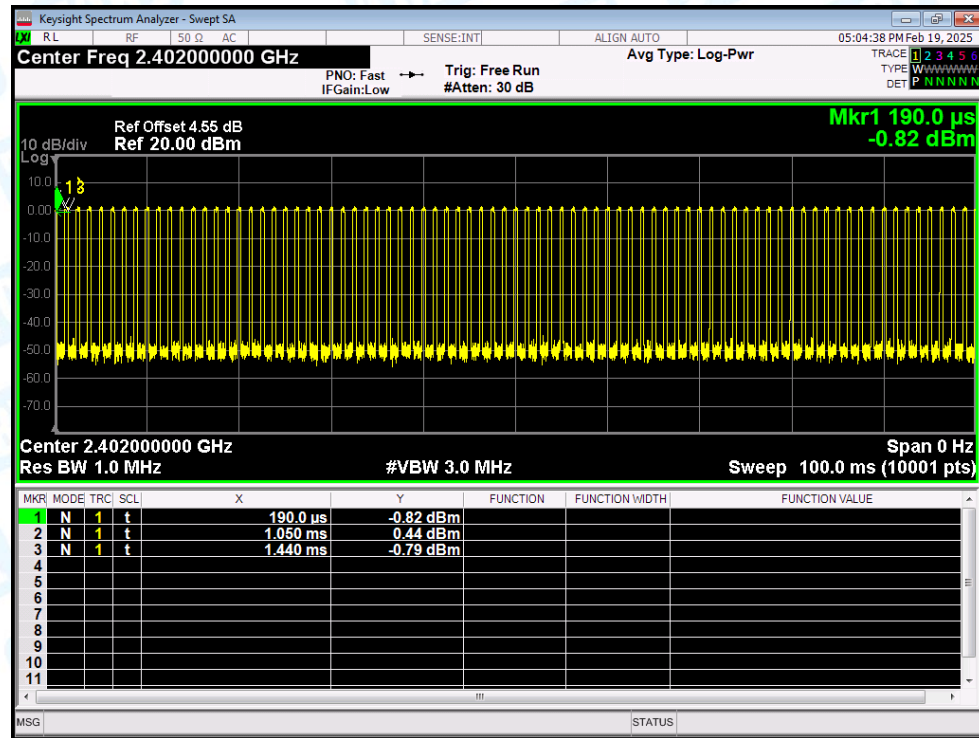
Duty Cycle NVNT 2-DH1 2441MHz Ant1



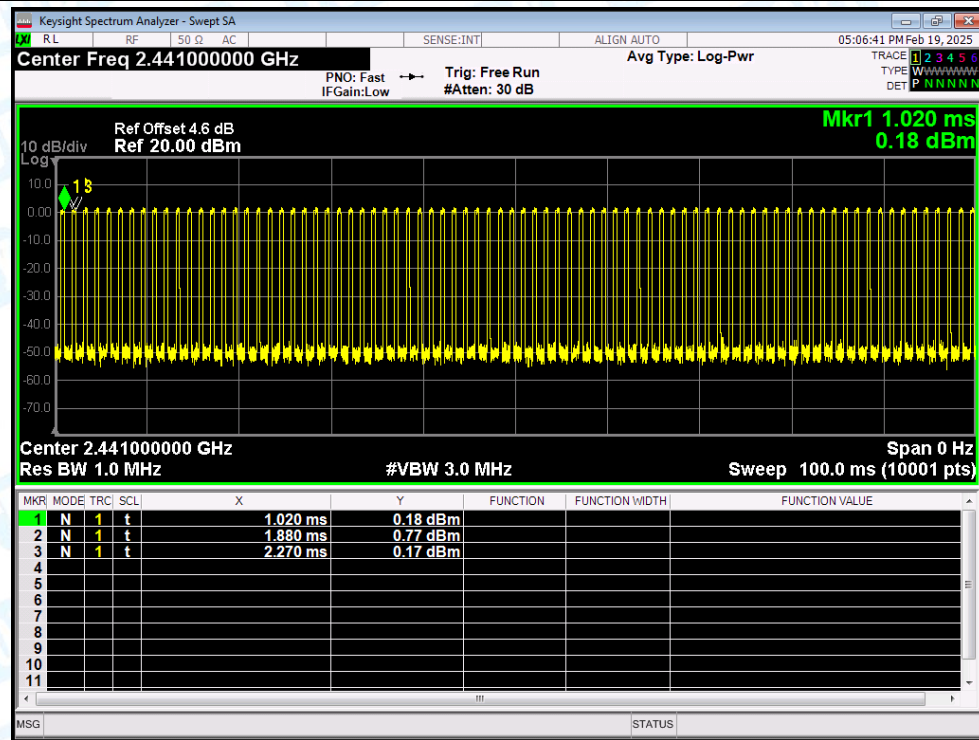
Duty Cycle NVNT 2-DH1 2480MHz Ant1

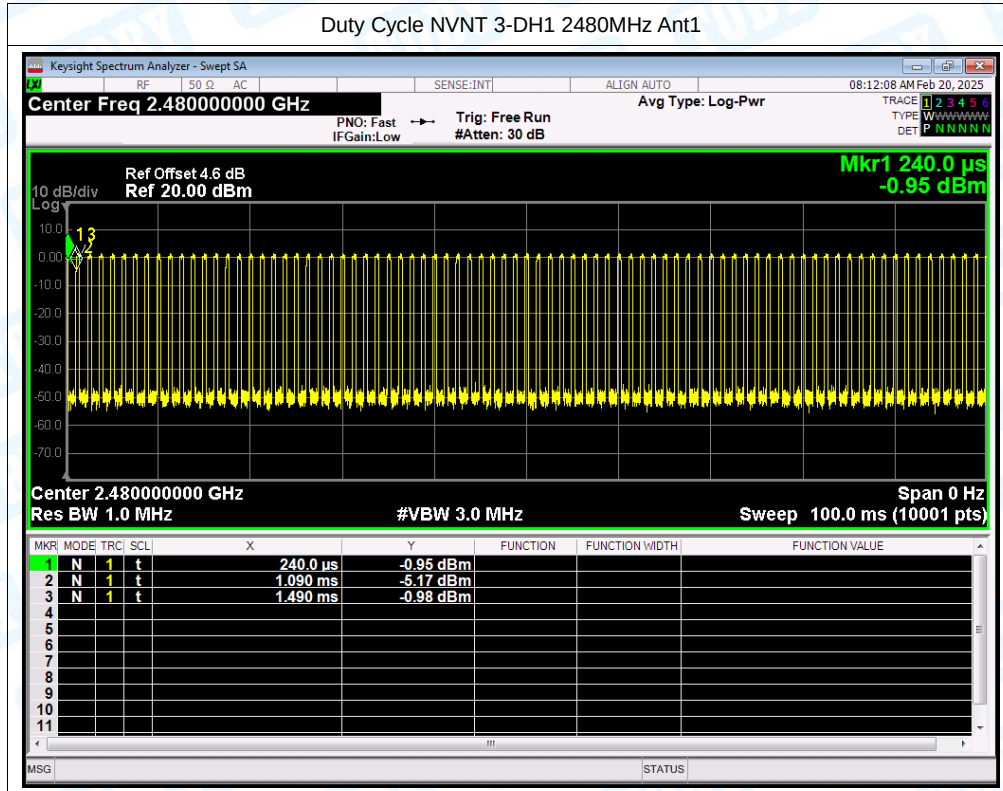


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



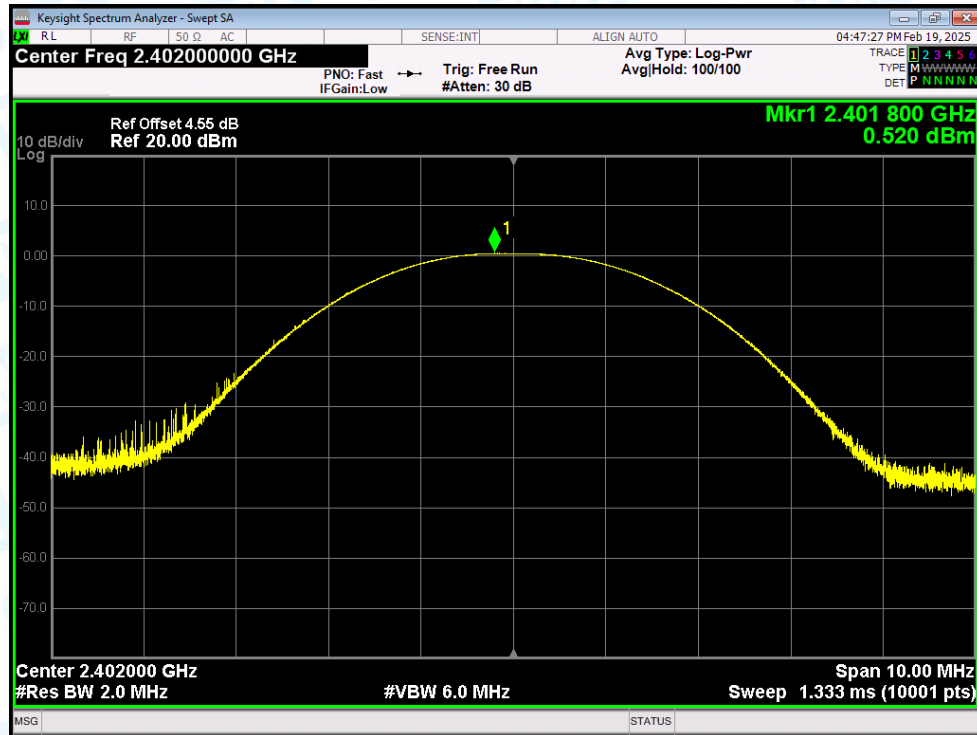


2.Maximum Conducted Output Power

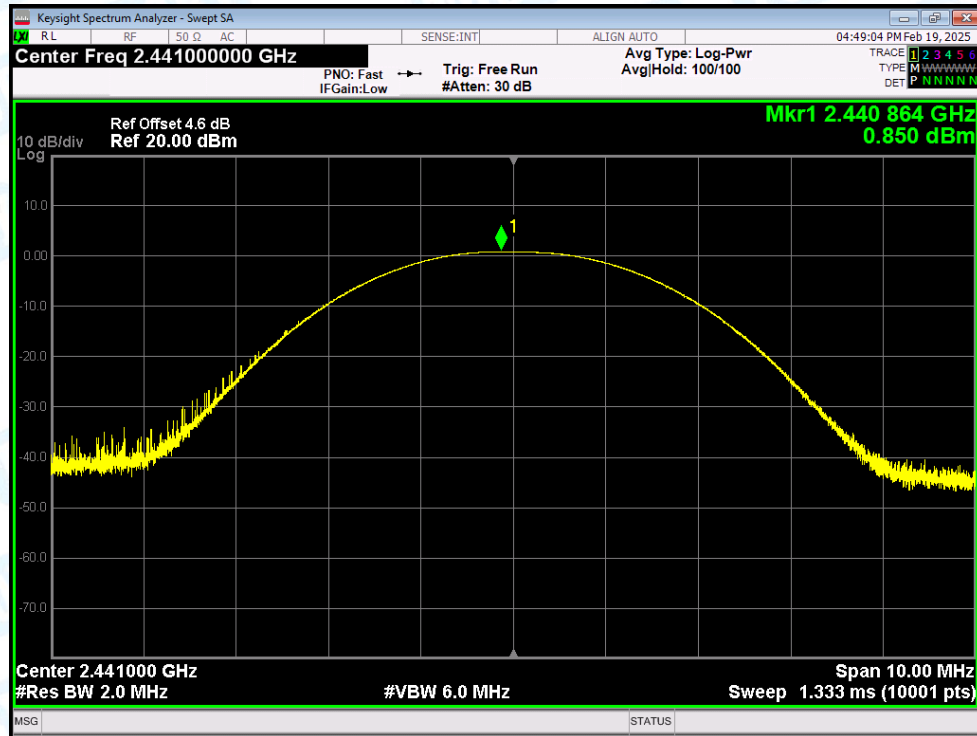
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	0.52	21	Pass
NVNT	1-DH1	2441	Ant1	0.85	21	Pass
NVNT	1-DH1	2480	Ant1	0.688	21	Pass
NVNT	2-DH1	2402	Ant1	1.395	21	Pass
NVNT	2-DH1	2441	Ant1	1.687	21	Pass
NVNT	2-DH1	2480	Ant1	1.509	21	Pass
NVNT	3-DH1	2402	Ant1	1.983	21	Pass
NVNT	3-DH1	2441	Ant1	2.275	21	Pass
NVNT	3-DH1	2480	Ant1	1.815	21	Pass

Test Graphs

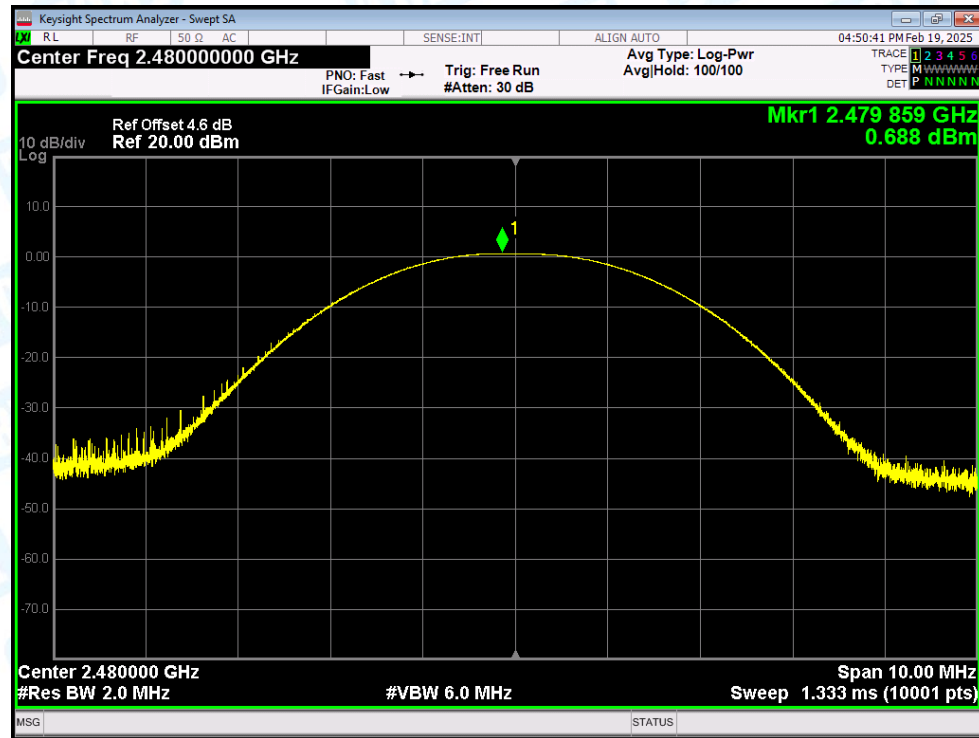
Power NVNT 1-DH1 2402MHz Ant1



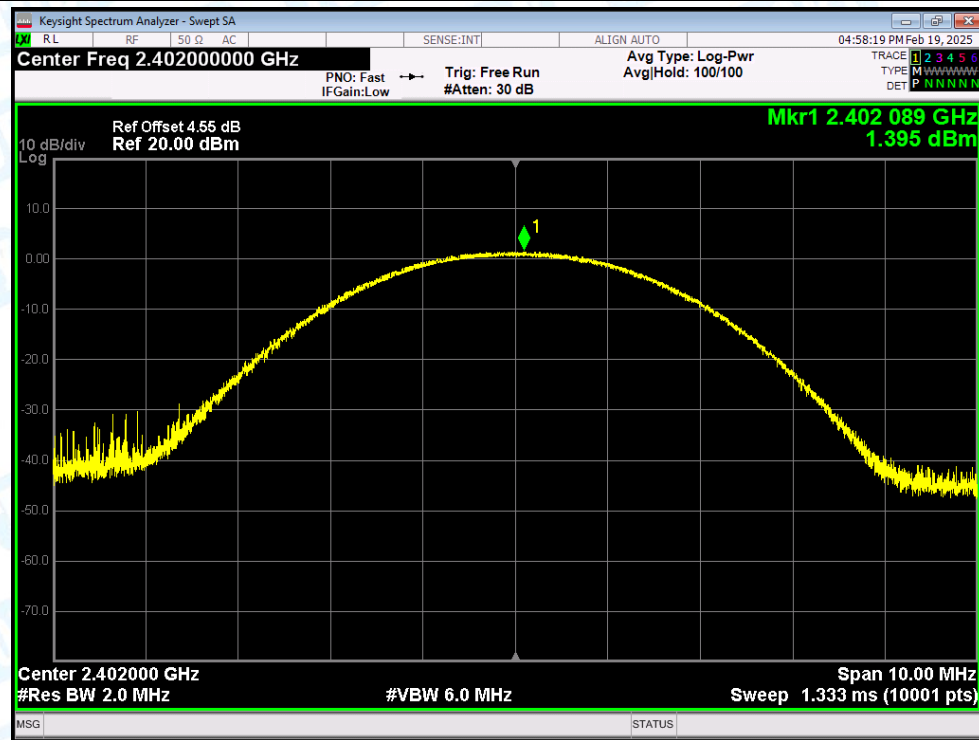
Power NVNT 1-DH1 2441MHz Ant1



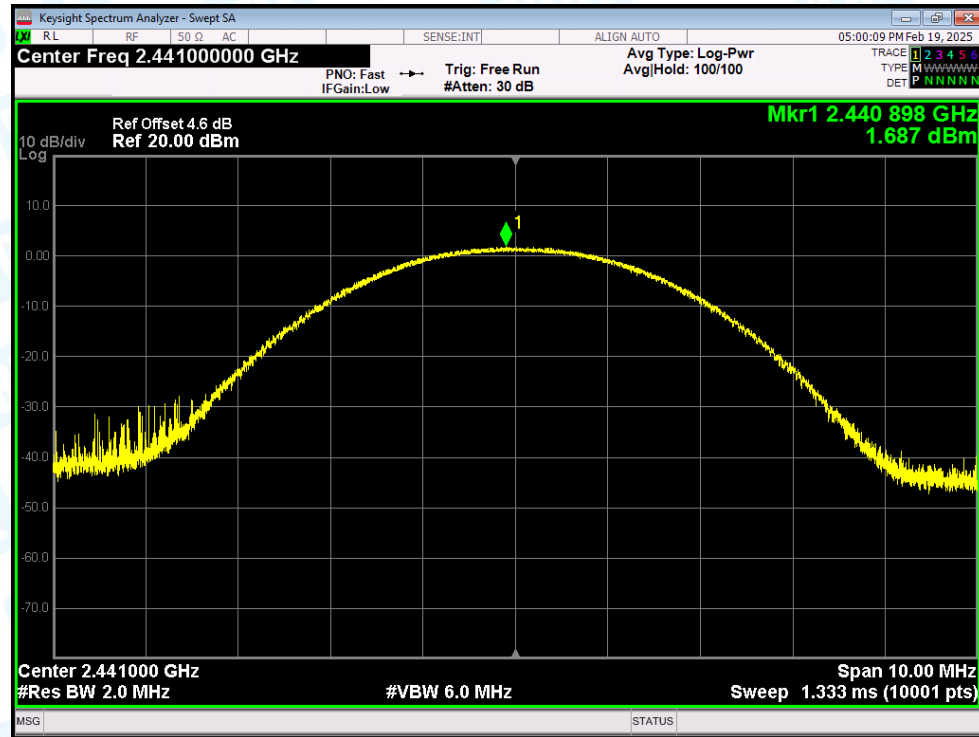
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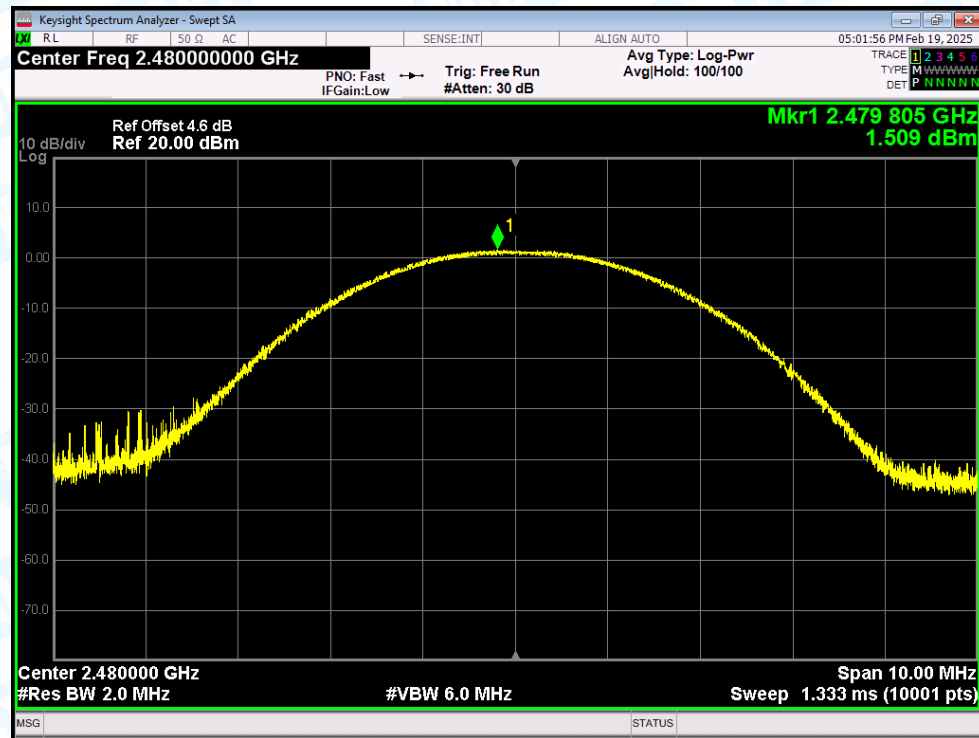
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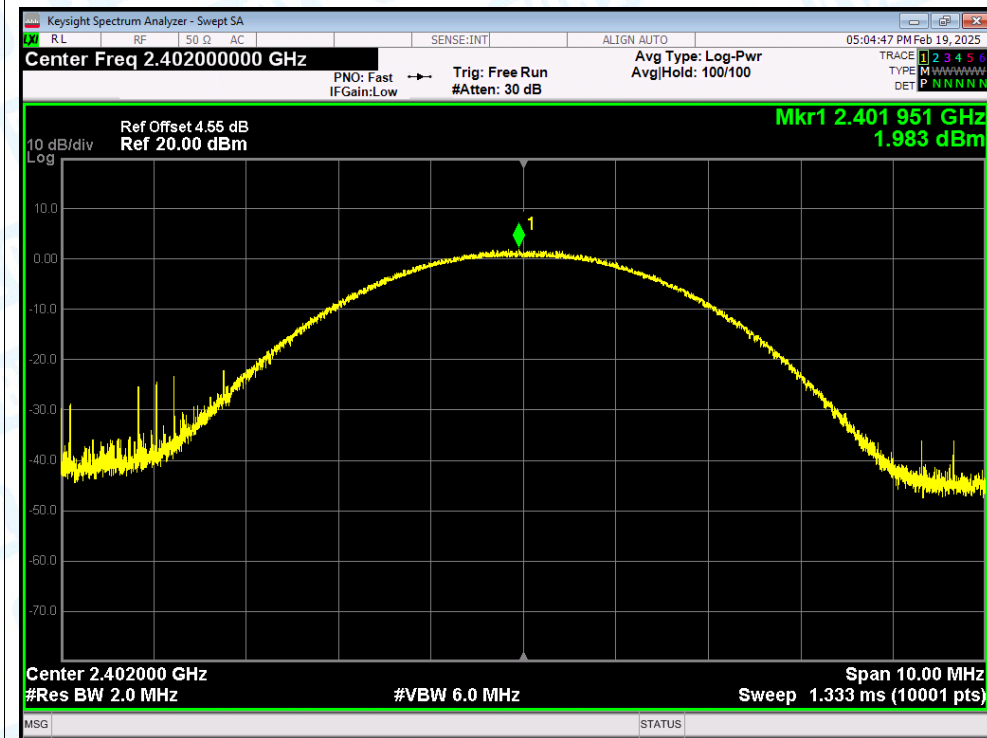
Power NVNT 2-DH1 2441MHz Ant1



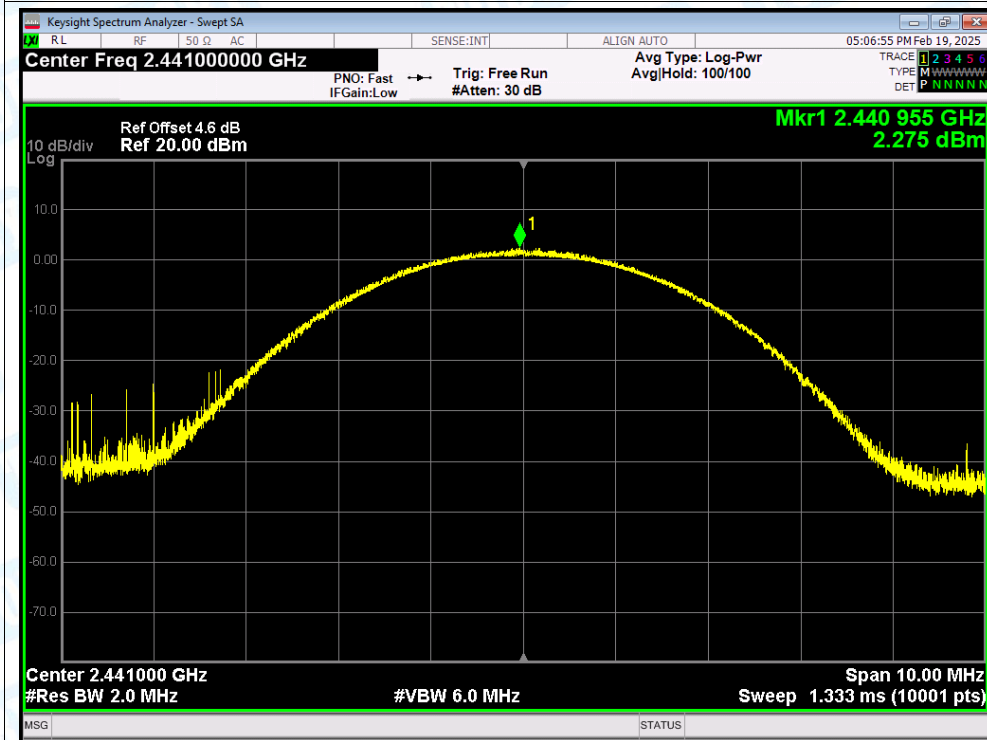
Power NVNT 2-DH1 2480MHz Ant1

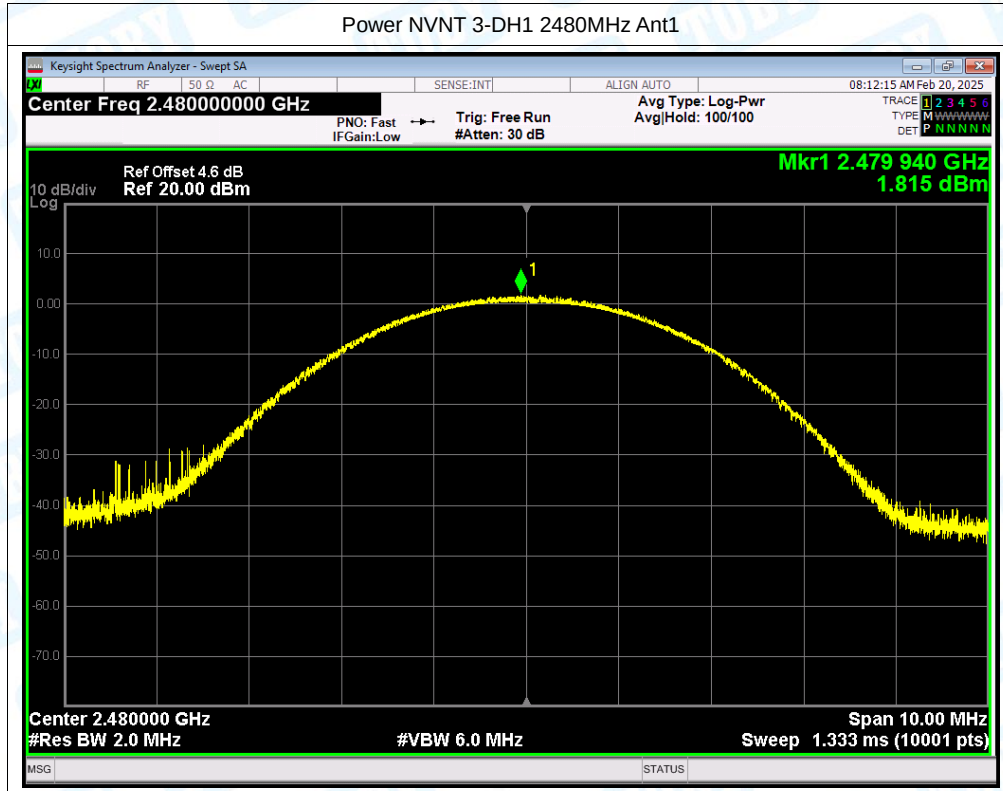


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1





3.-20dB Bandwidth

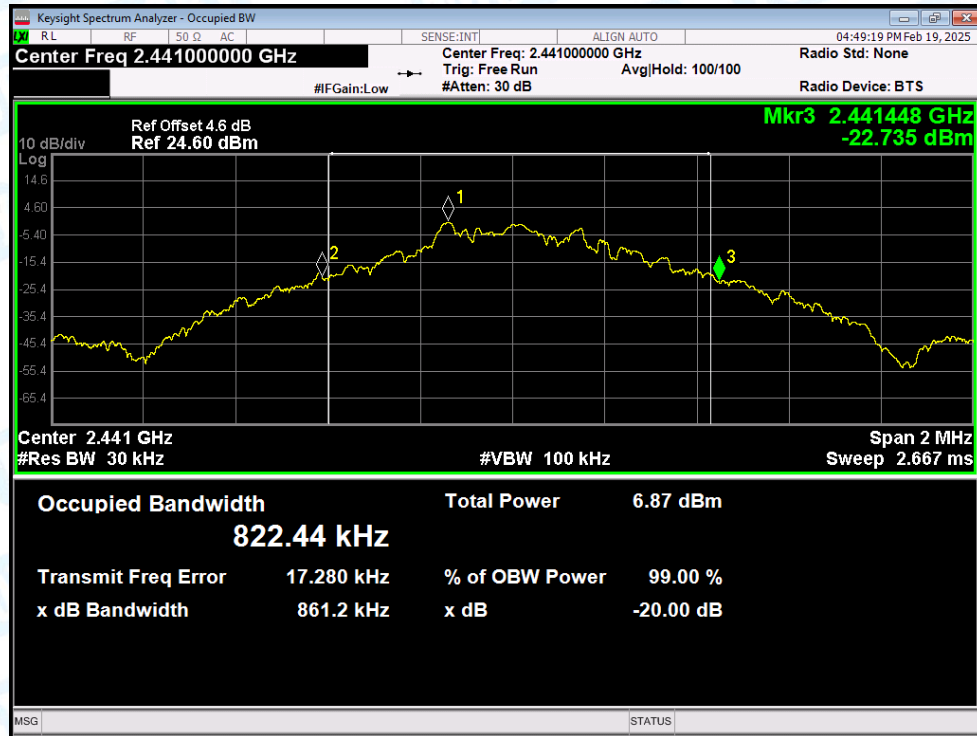
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.87	0	Pass
NVNT	1-DH1	2441	Ant1	0.86	0	Pass
NVNT	1-DH1	2480	Ant1	0.87	0	Pass
NVNT	2-DH1	2402	Ant1	1.24	0	Pass
NVNT	2-DH1	2441	Ant1	1.25	0	Pass
NVNT	2-DH1	2480	Ant1	1.25	0	Pass
NVNT	3-DH1	2402	Ant1	1.24	0	Pass
NVNT	3-DH1	2441	Ant1	1.23	0	Pass
NVNT	3-DH1	2480	Ant1	1.24	0	Pass

Test Graphs

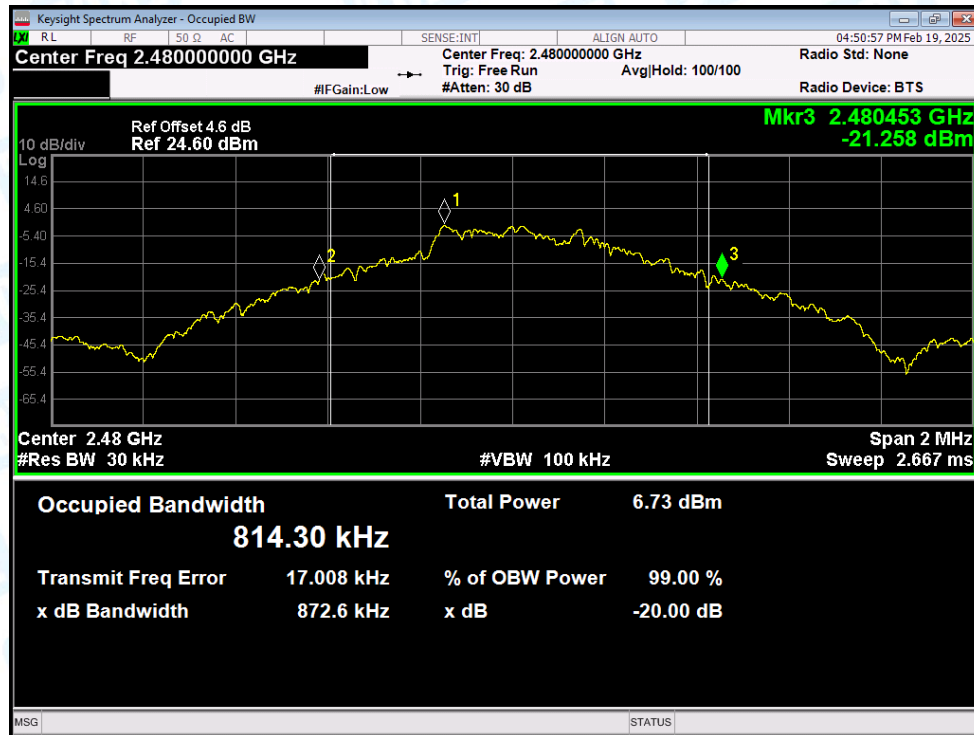
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



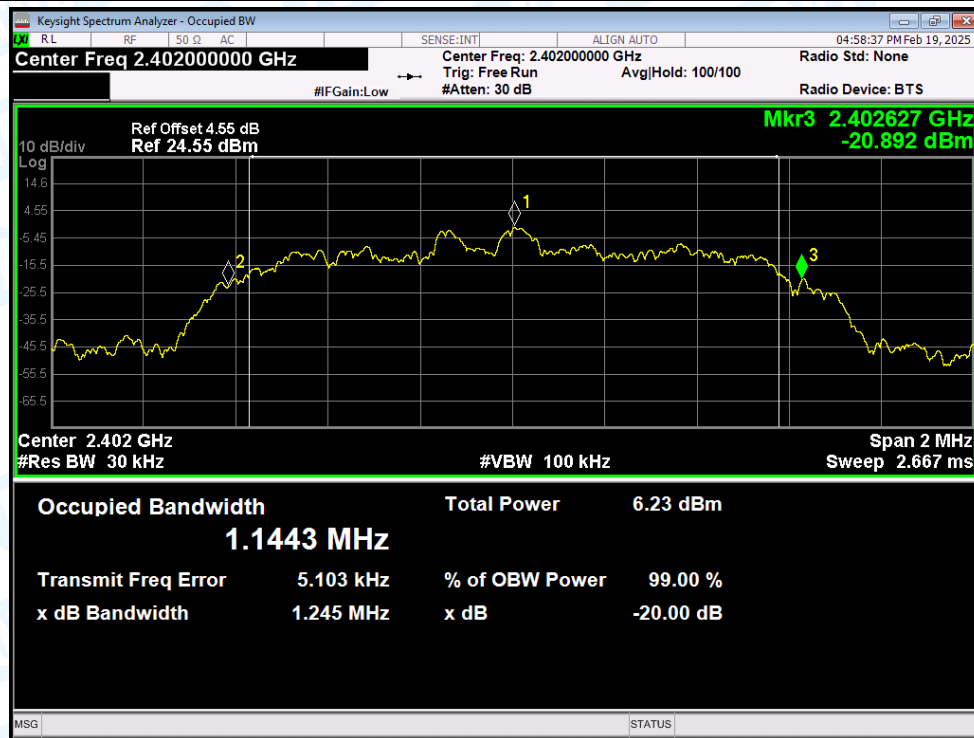
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



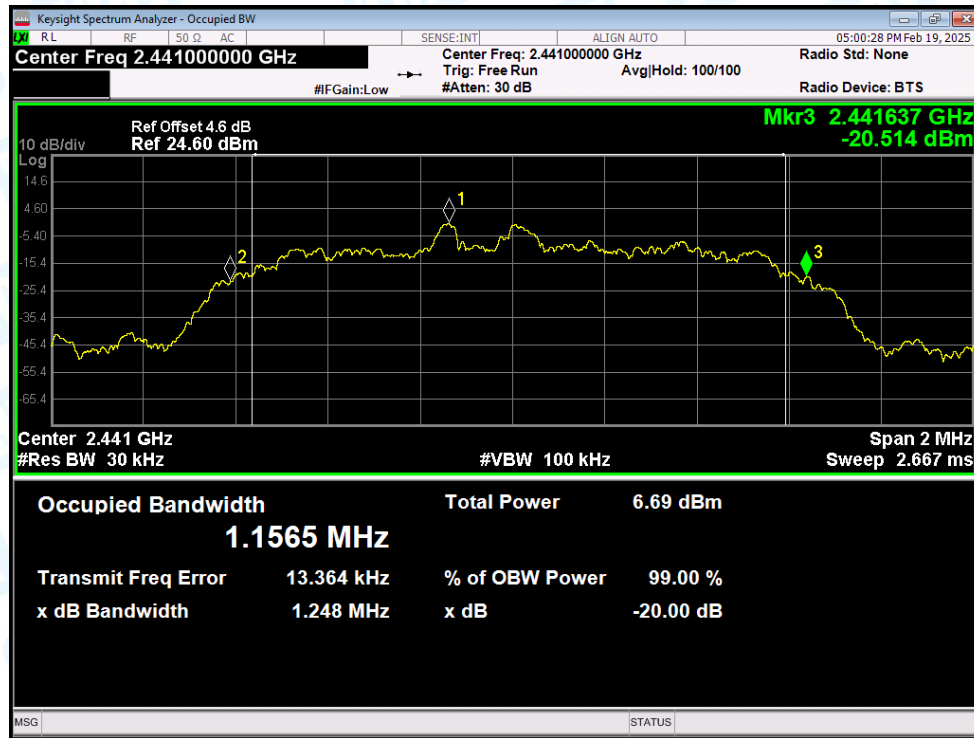
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



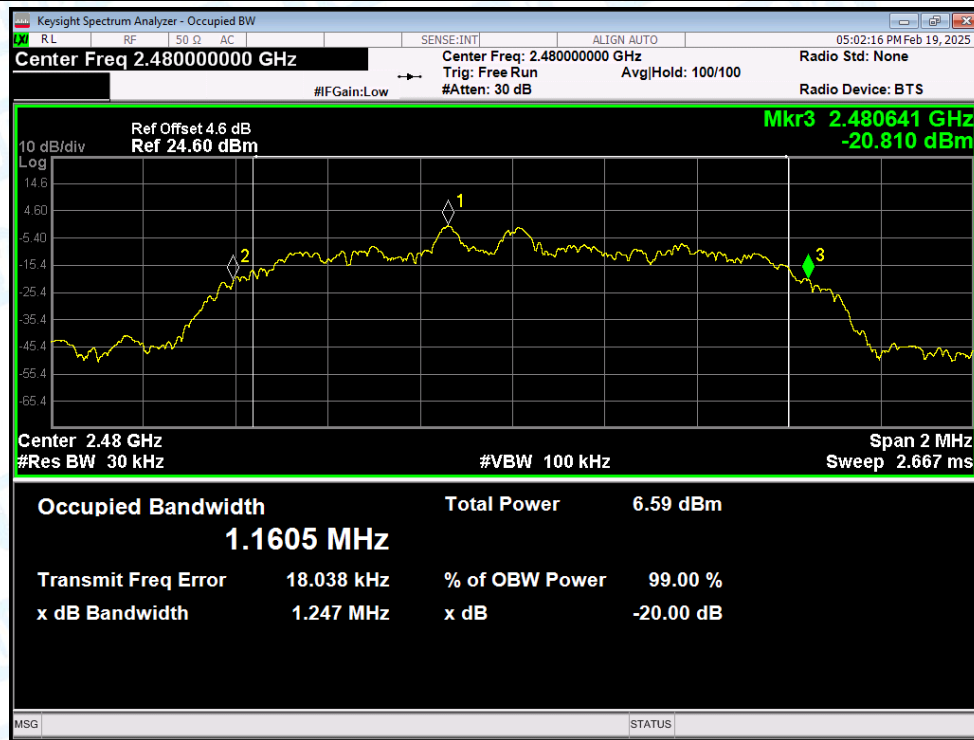
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



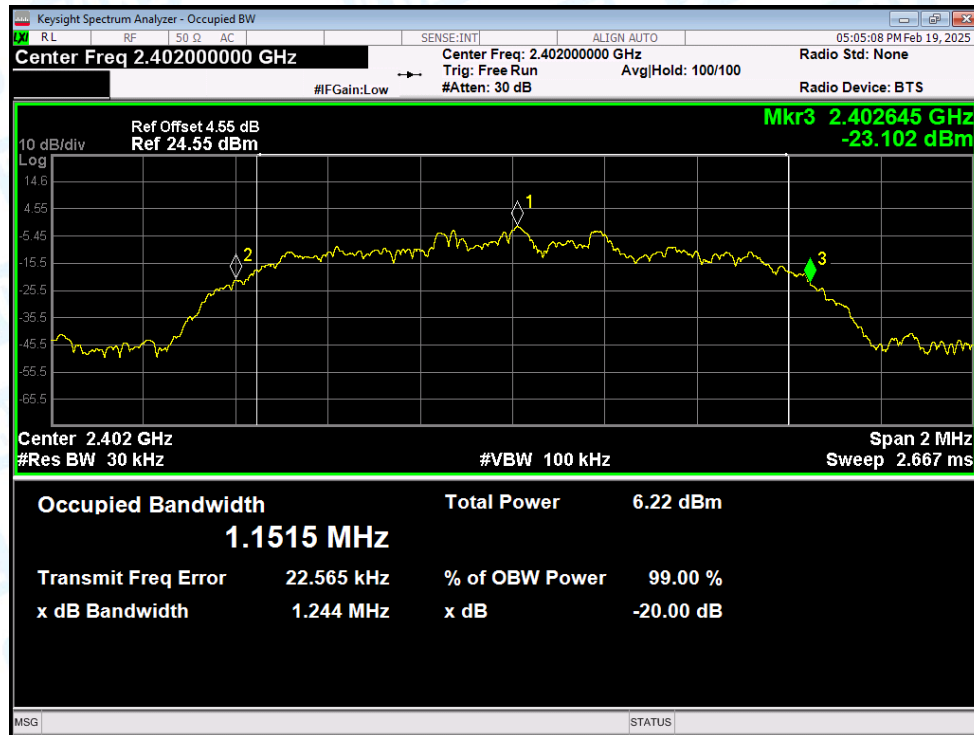
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



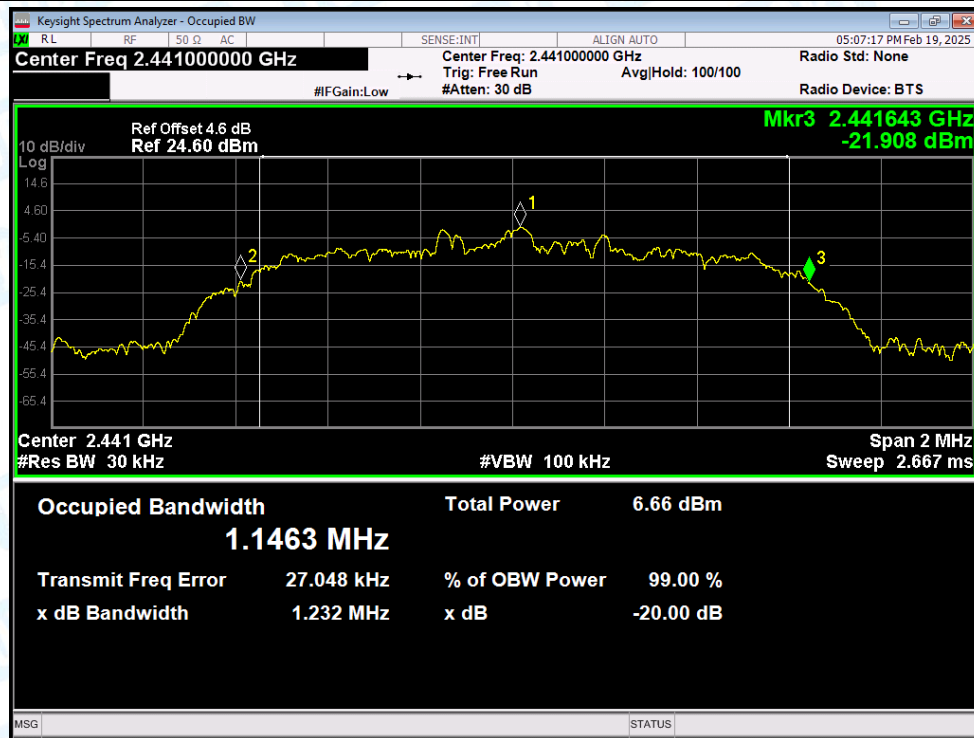
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

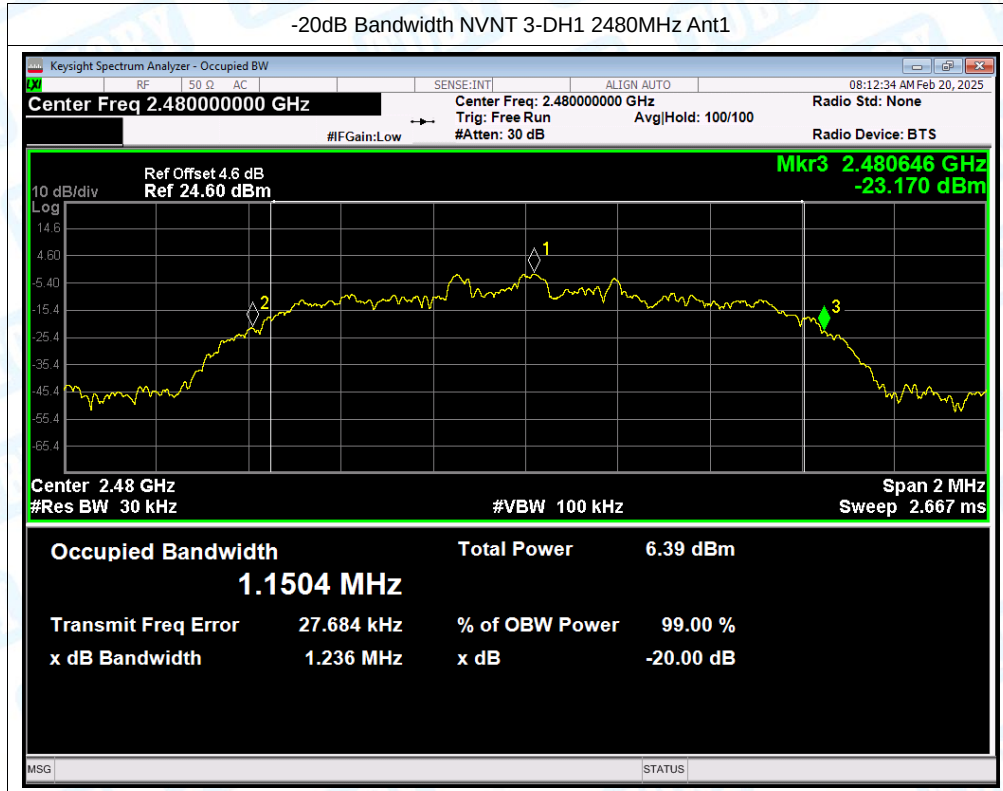


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



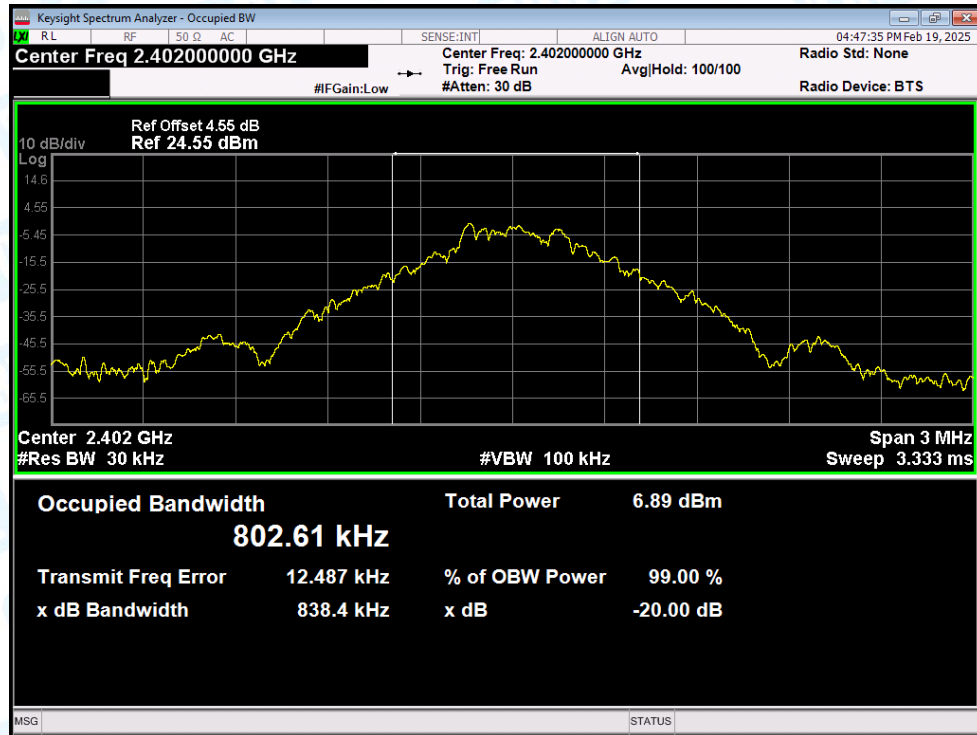


4.Occupied Channel Bandwidth

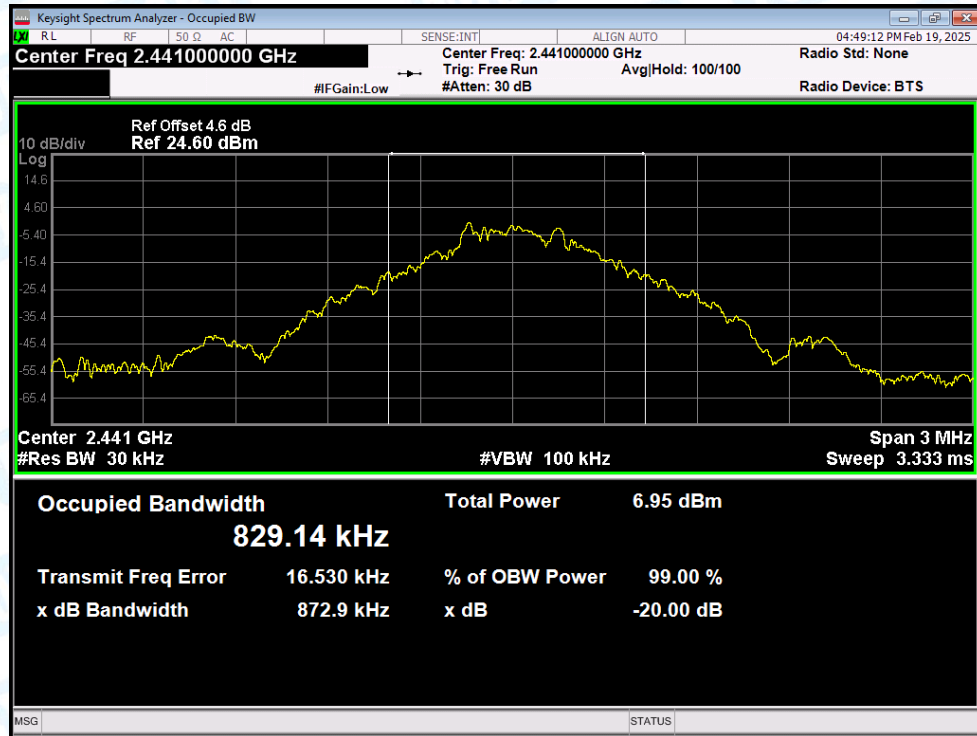
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.803
NVNT	1-DH1	2441	Ant1	0.829
NVNT	1-DH1	2480	Ant1	0.804
NVNT	2-DH1	2402	Ant1	1.158
NVNT	2-DH1	2441	Ant1	1.169
NVNT	2-DH1	2480	Ant1	1.164
NVNT	3-DH1	2402	Ant1	1.148
NVNT	3-DH1	2441	Ant1	1.147
NVNT	3-DH1	2480	Ant1	1.127

Test Graphs

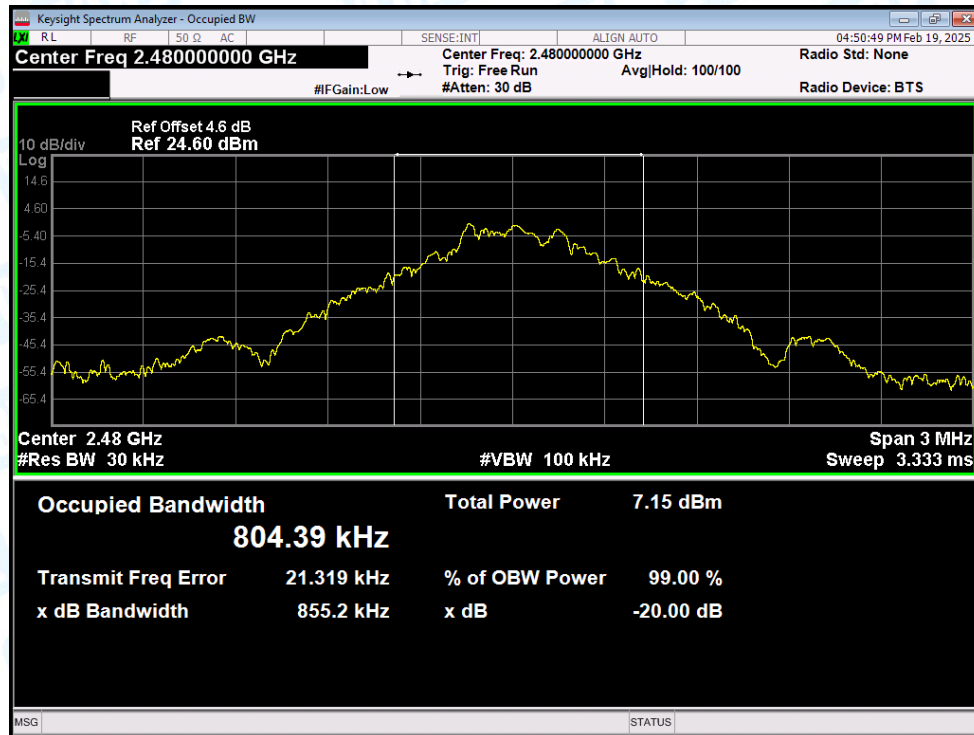
OBW NVNT 1-DH1 2402MHz Ant1



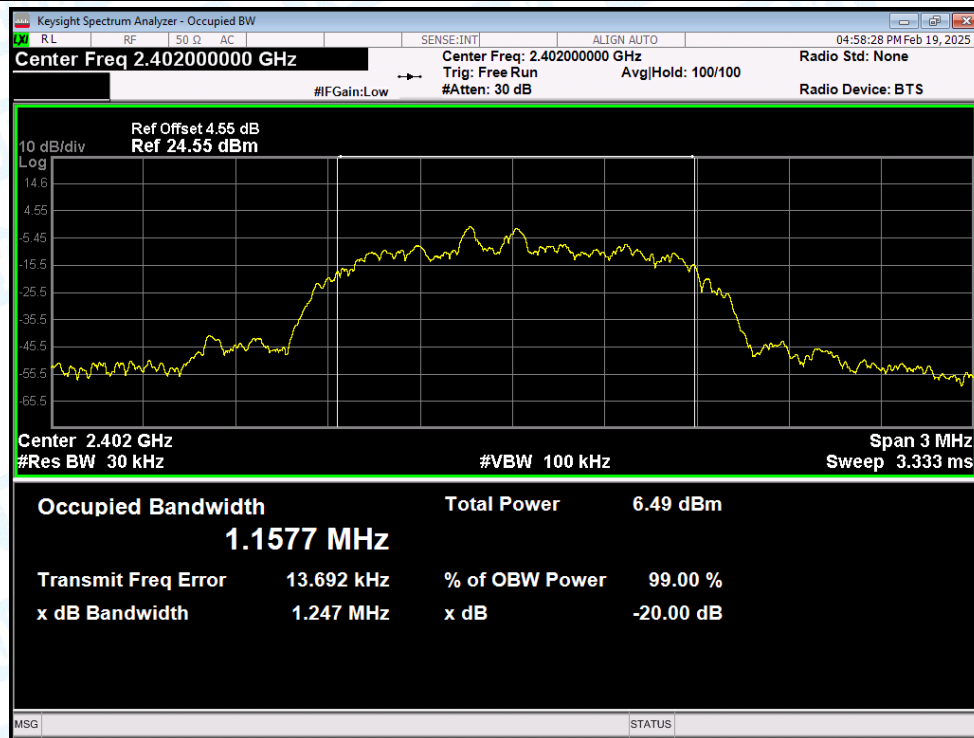
OBW NVNT 1-DH1 2441MHz Ant1



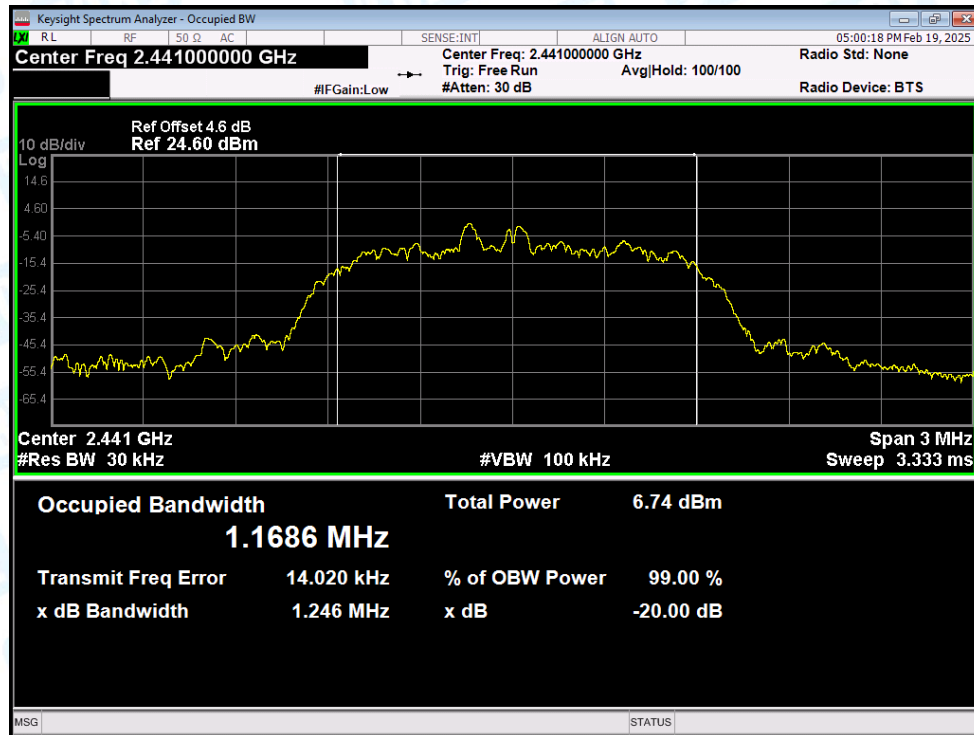
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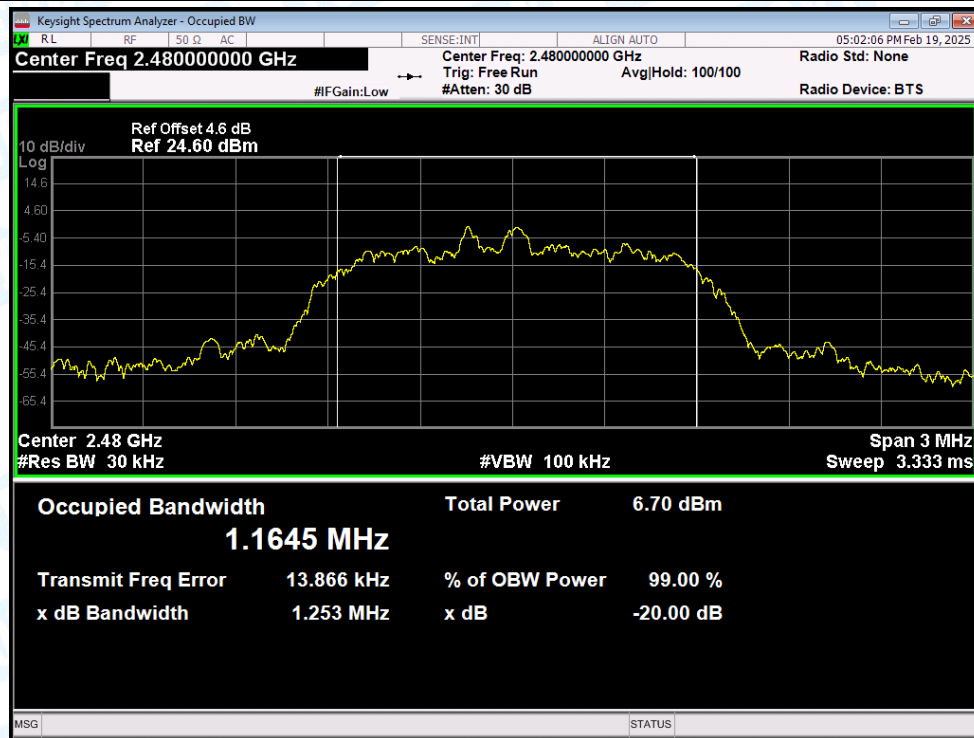
OBW NVNT 2-DH1 2402MHz Ant1



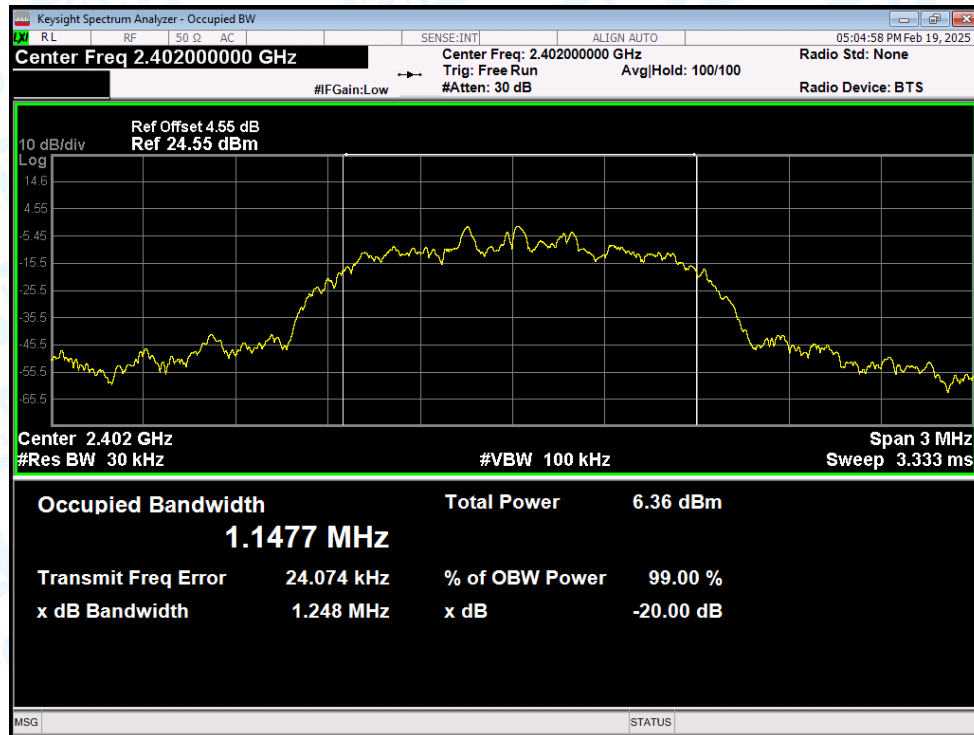
OBW NVNT 2-DH1 2441MHz Ant1



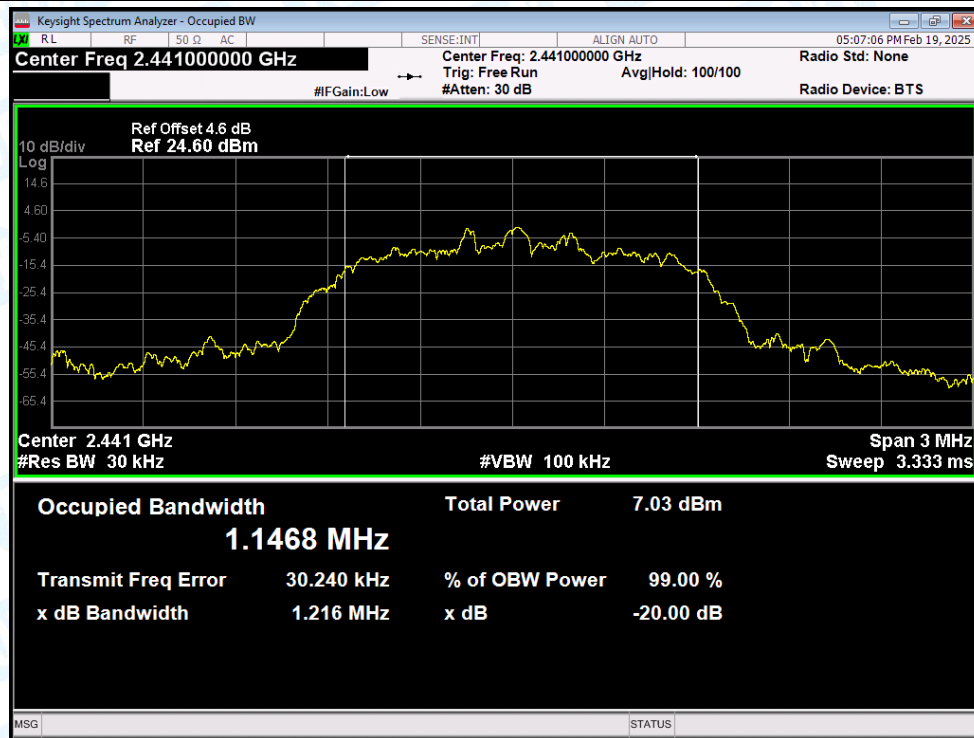
OBW NVNT 2-DH1 2480MHz Ant1

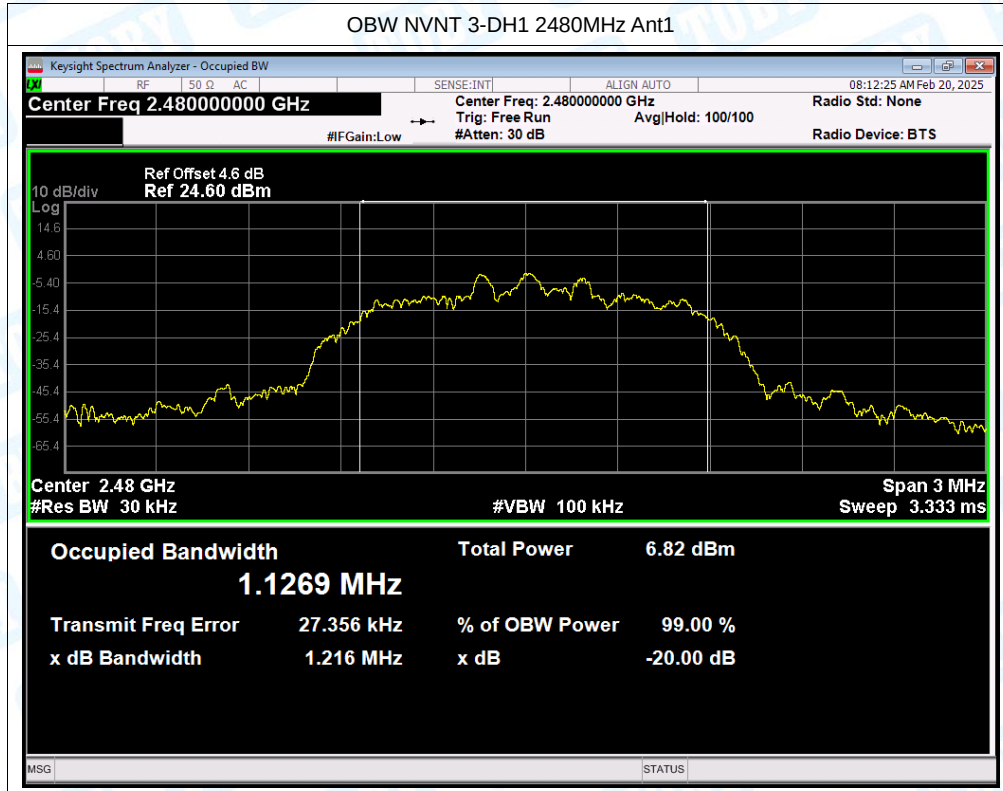


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



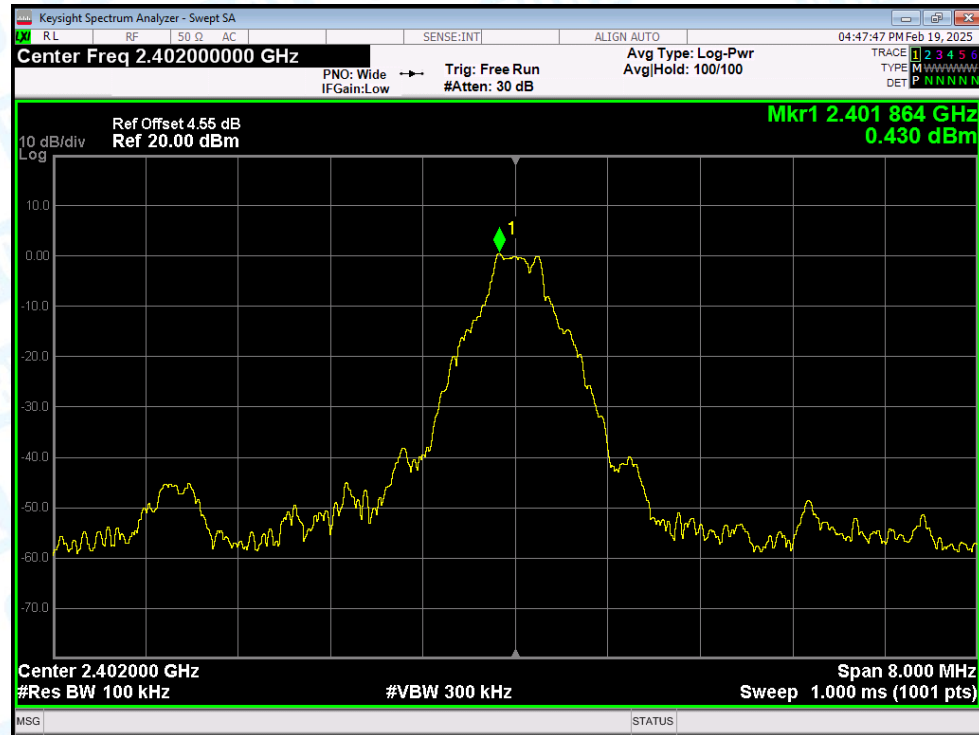


5.Band Edge

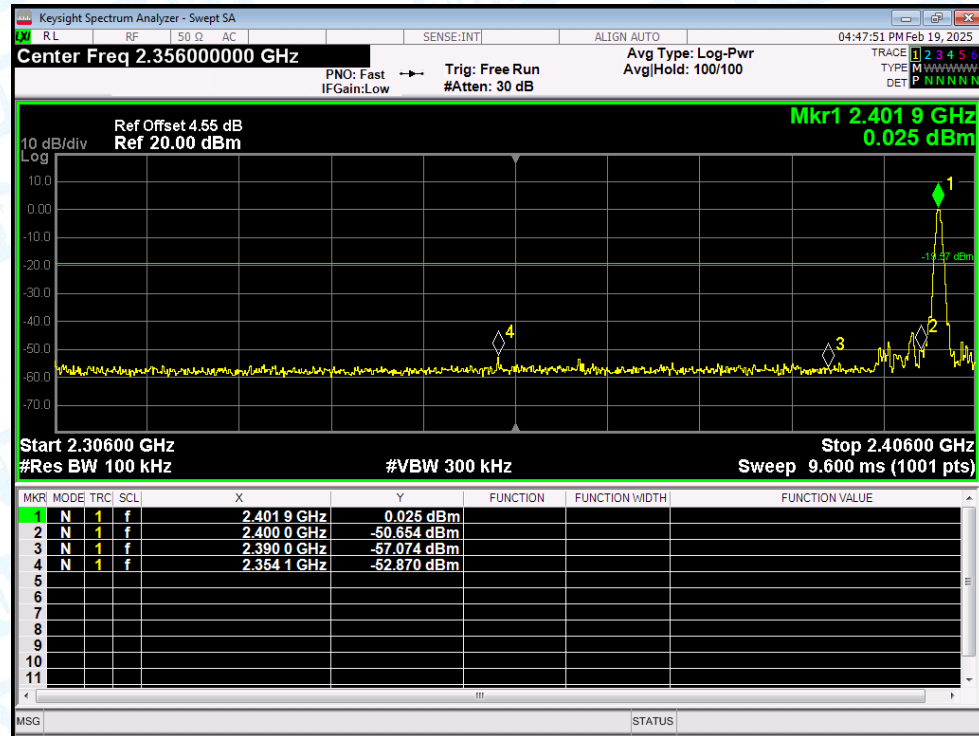
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-53.3	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-52.59	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-53.87	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-53	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-55.52	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-51.93	-20	Pass

Test Graphs

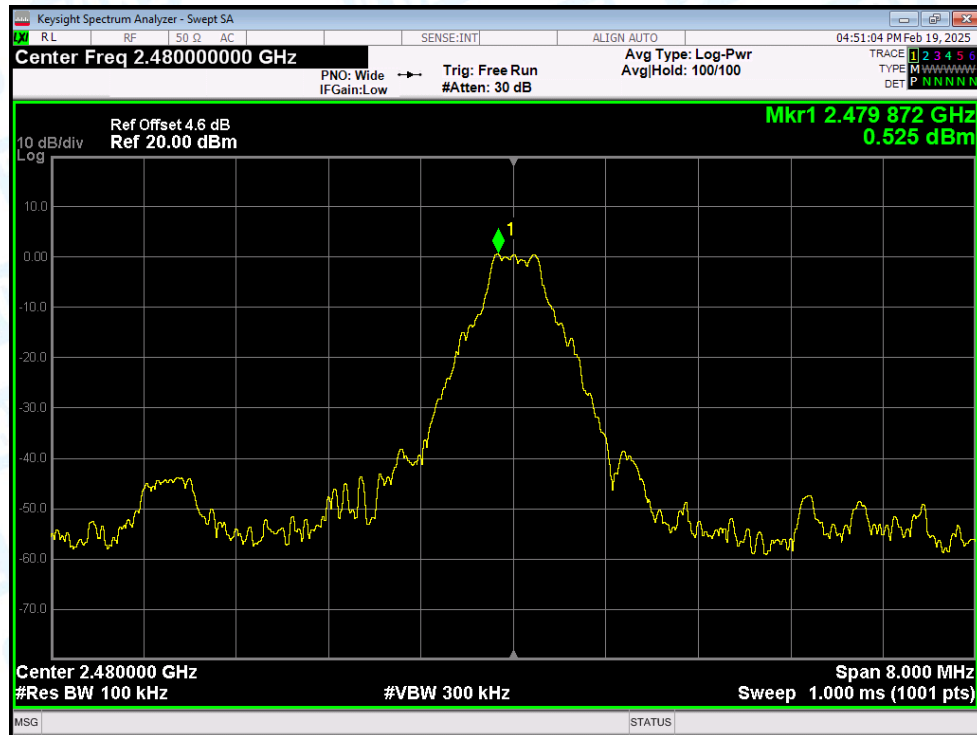
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



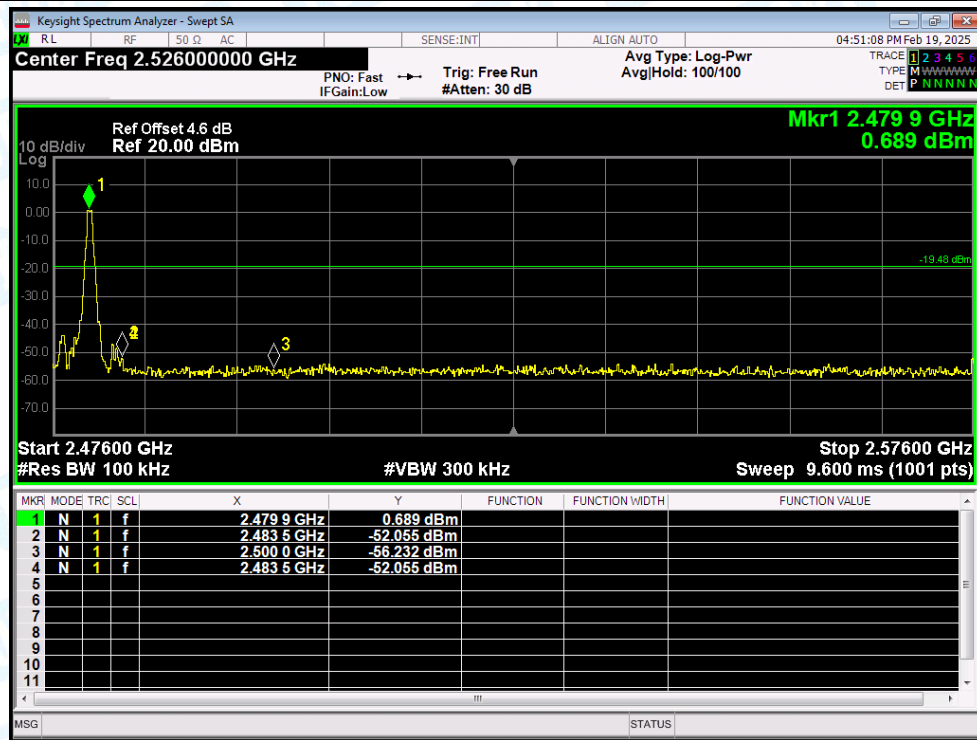
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



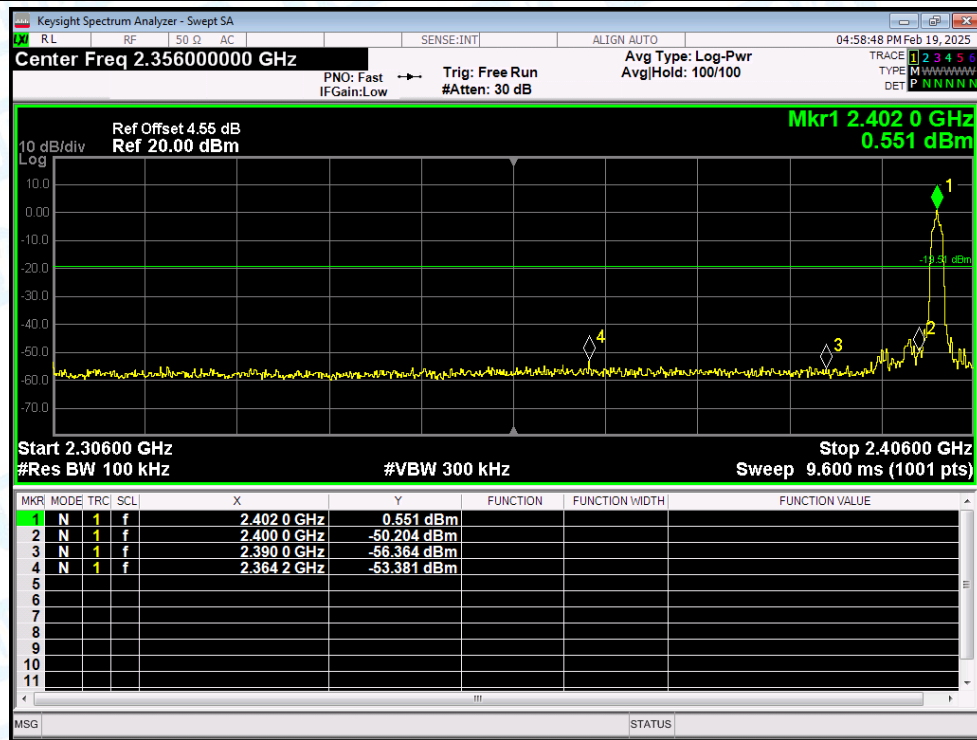
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



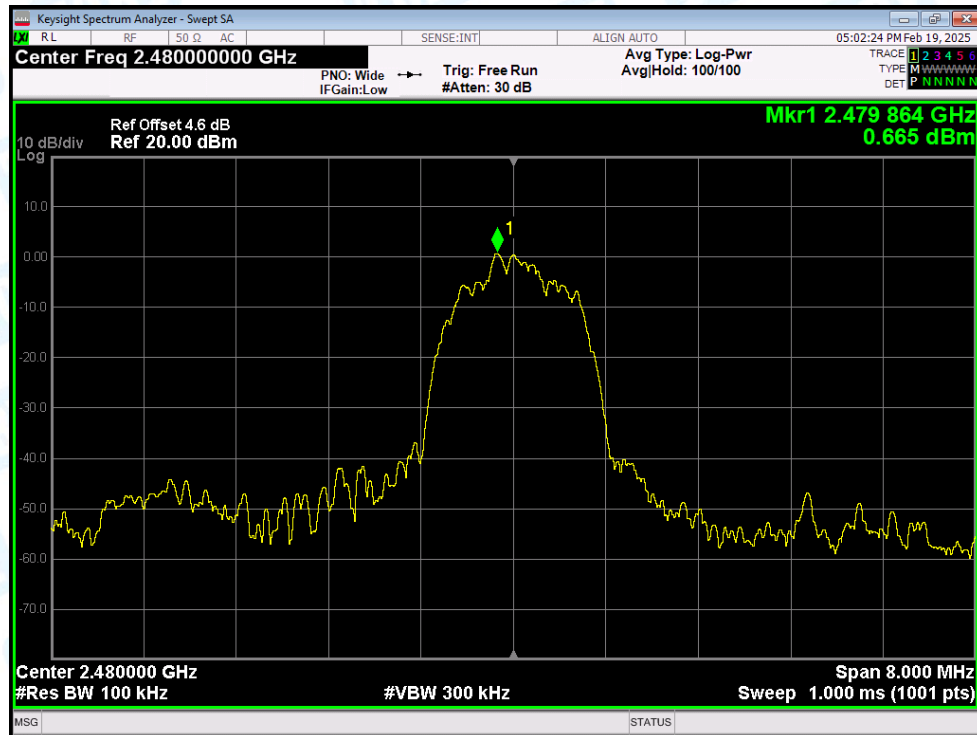
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



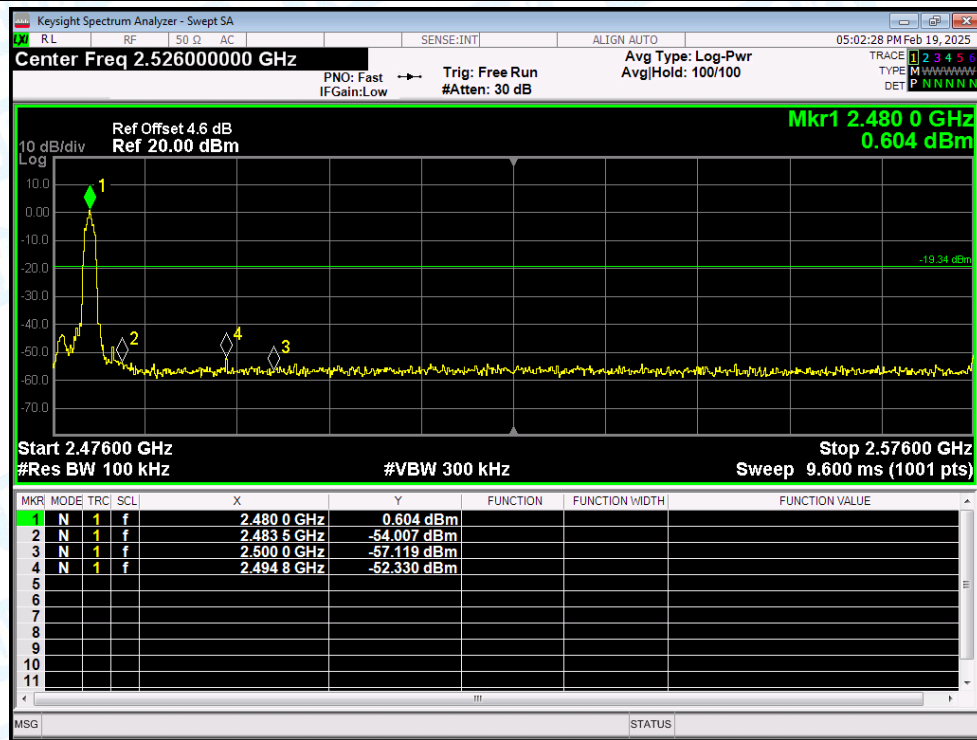
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission

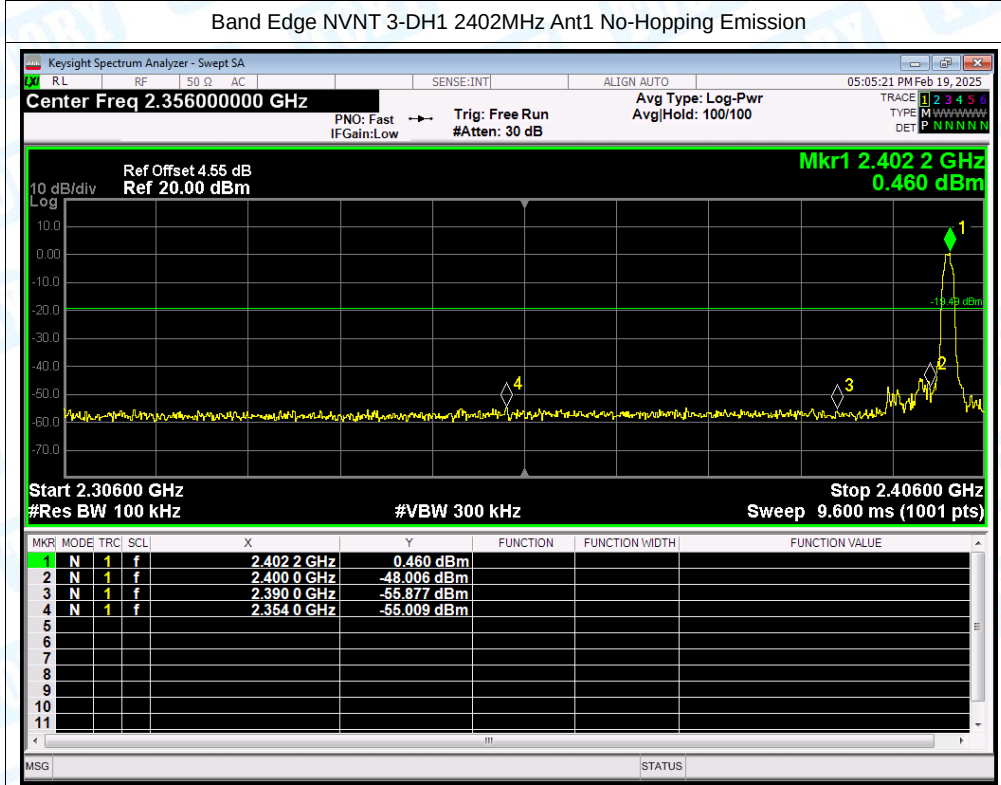
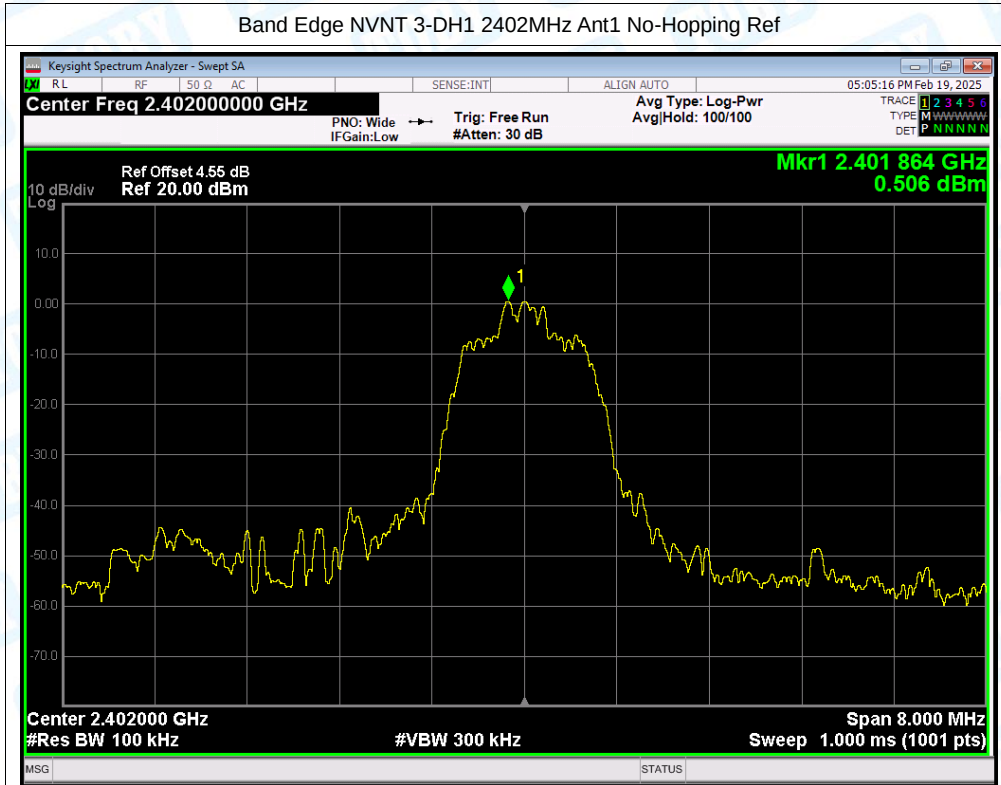


Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission

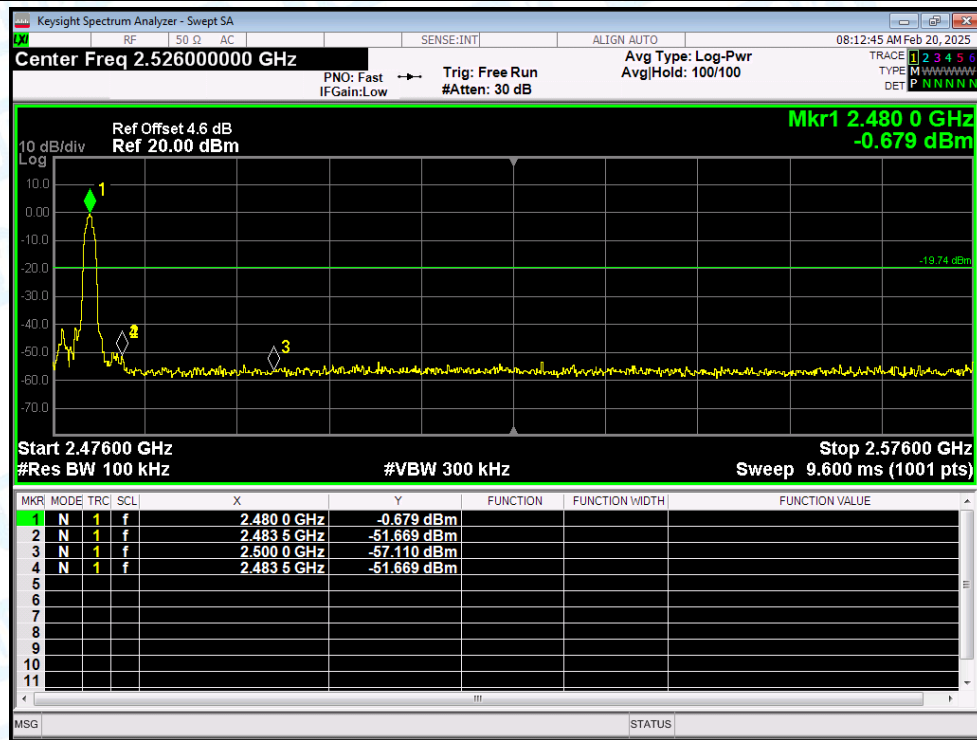




Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Ref



Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Emission

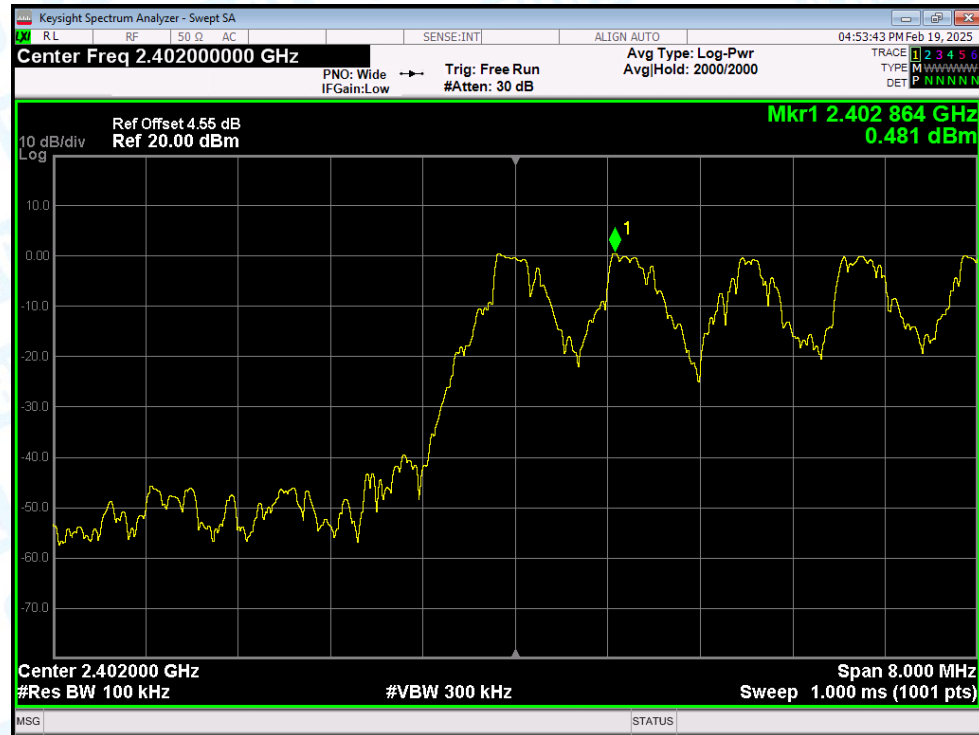


6. Band Edge(Hopping)

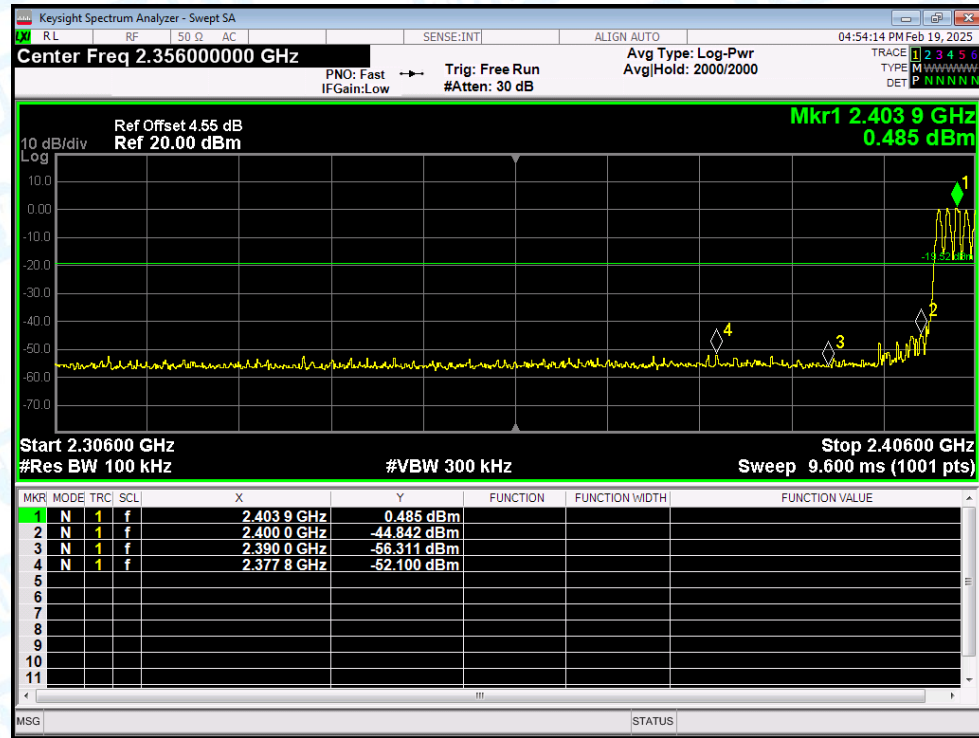
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-52.58	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-52.91	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-52.83	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-52.03	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-51.95	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-51.16	-20	Pass

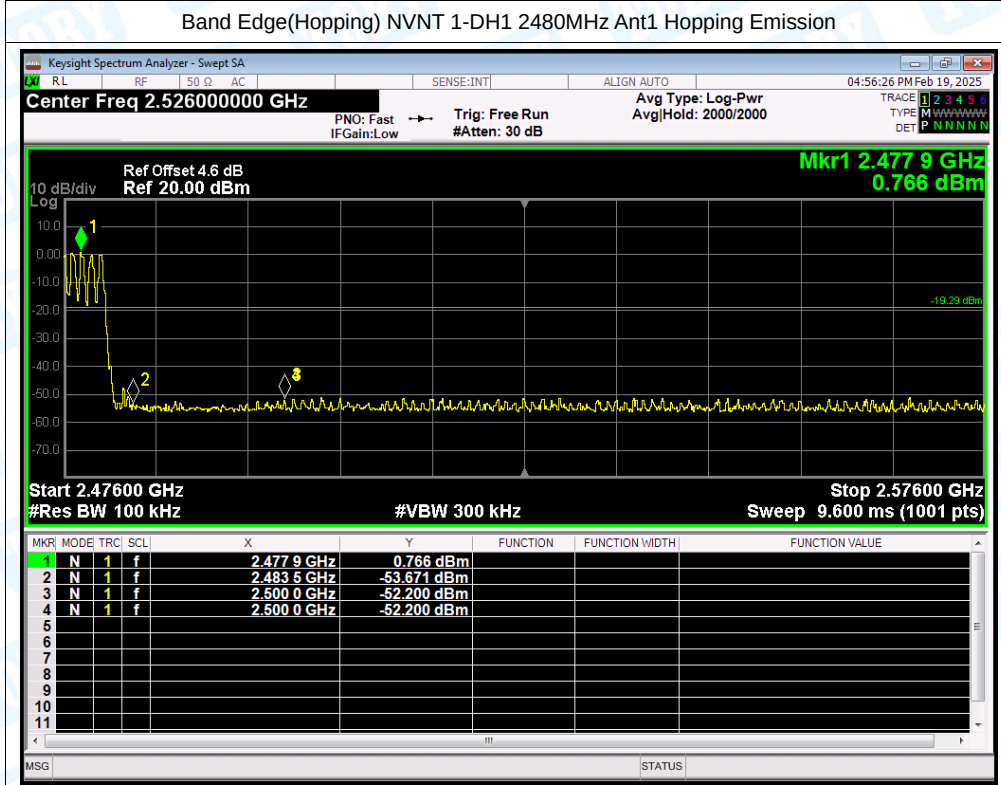
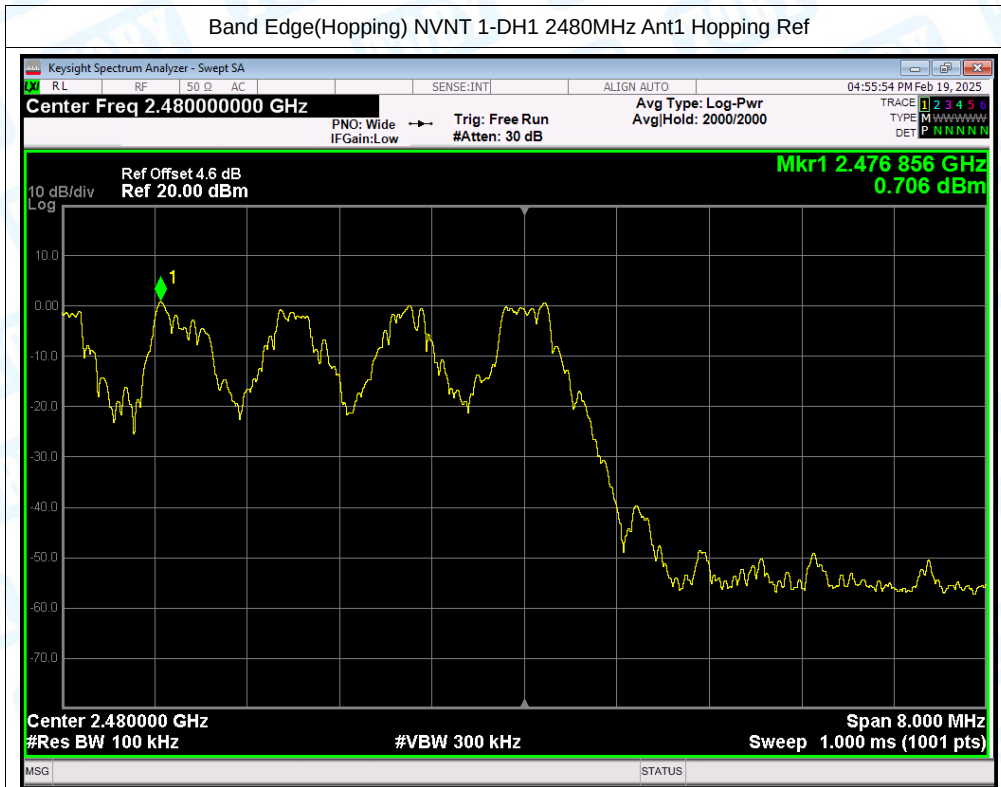
Test Graphs

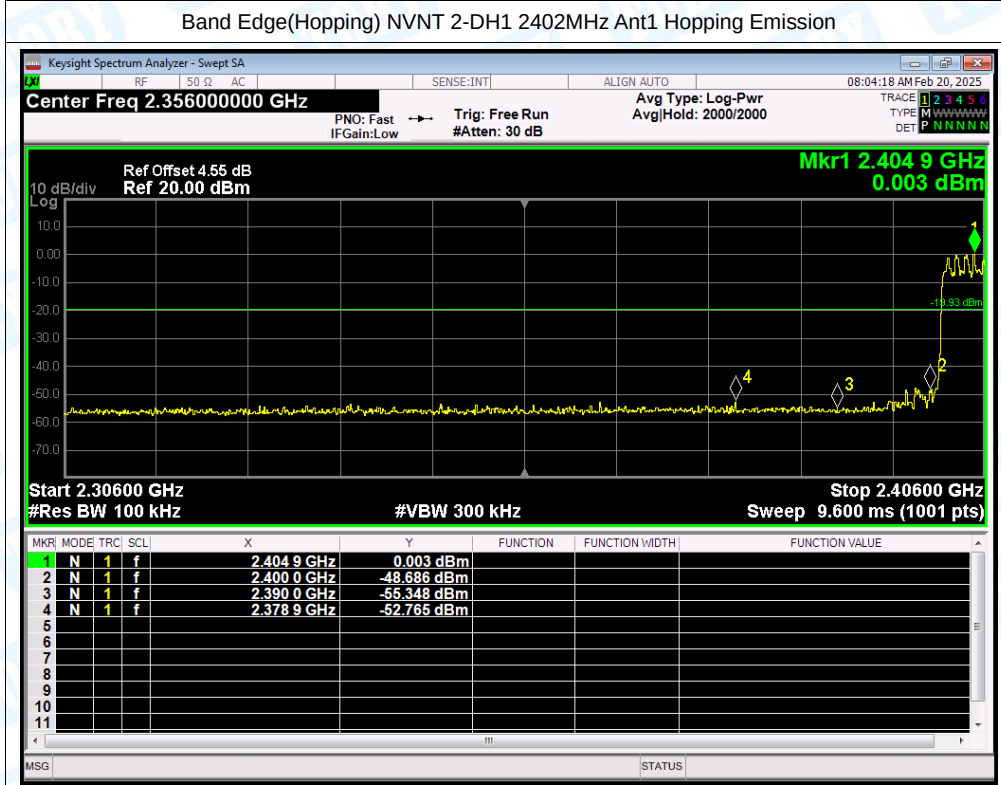
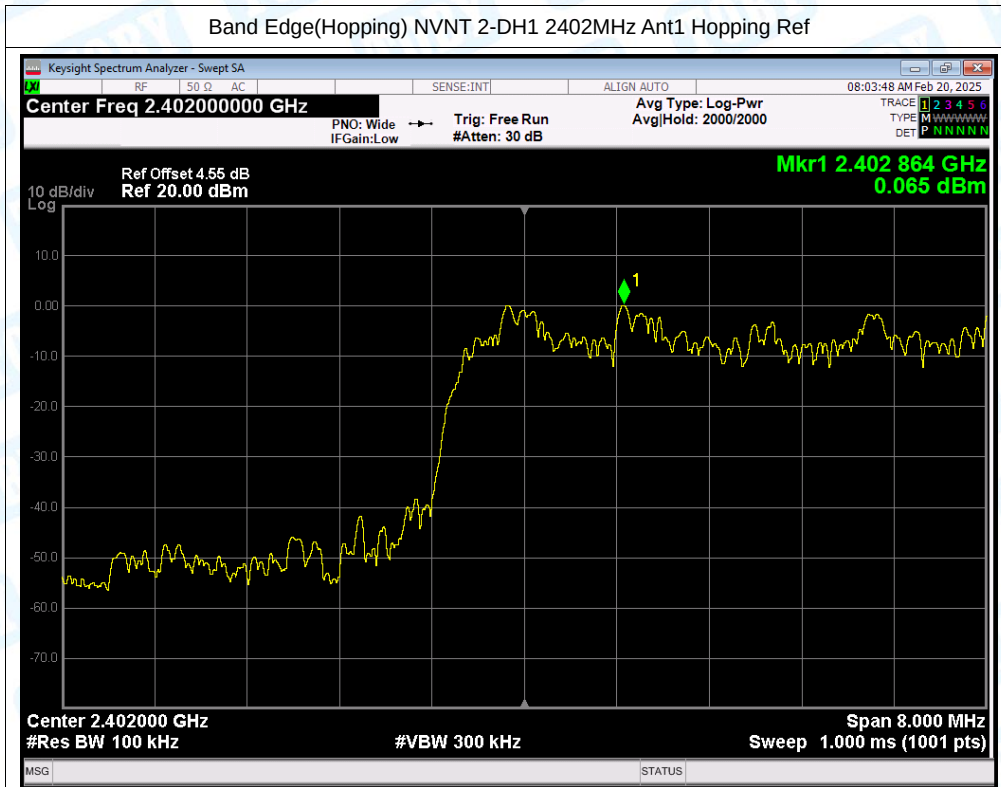
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref

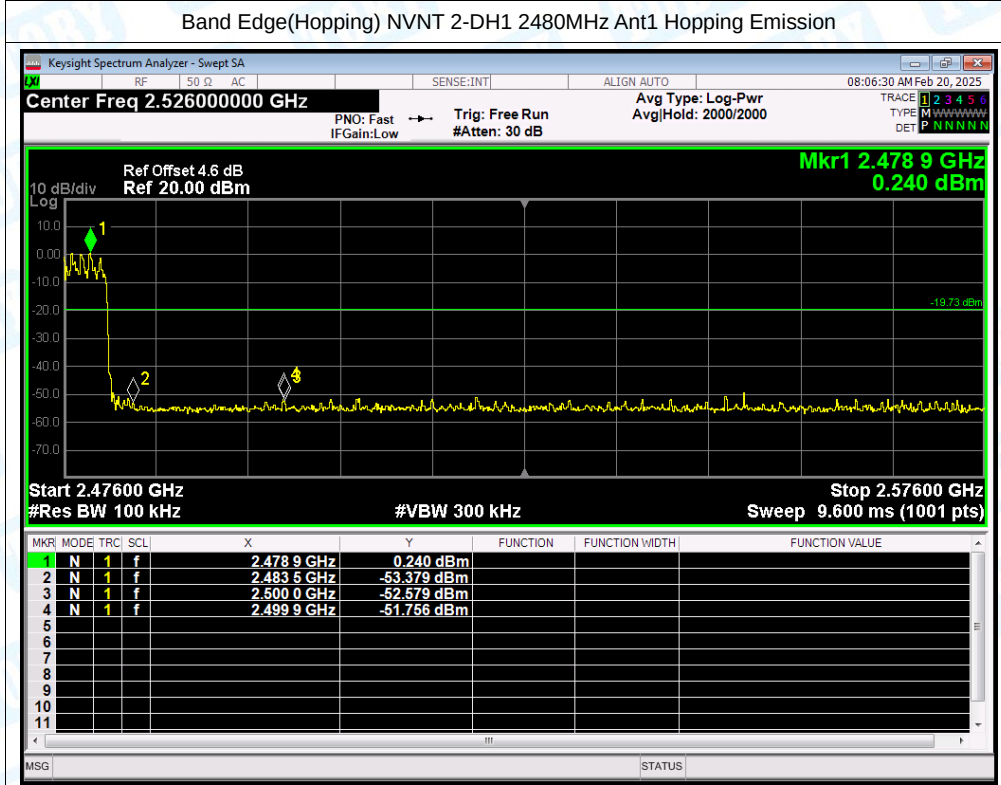


Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission

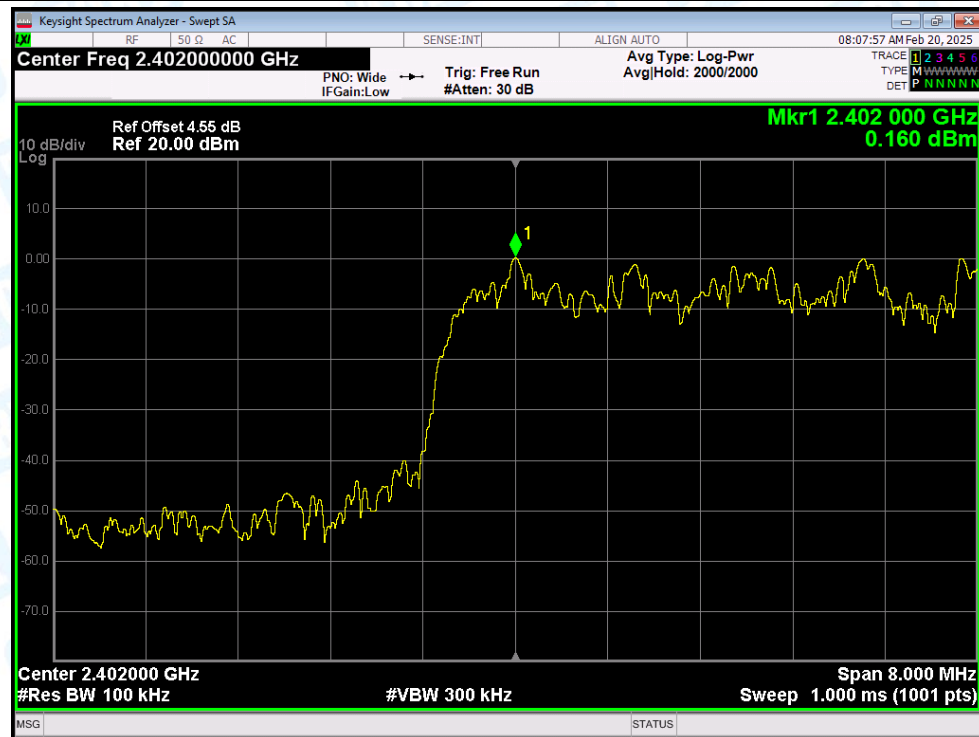




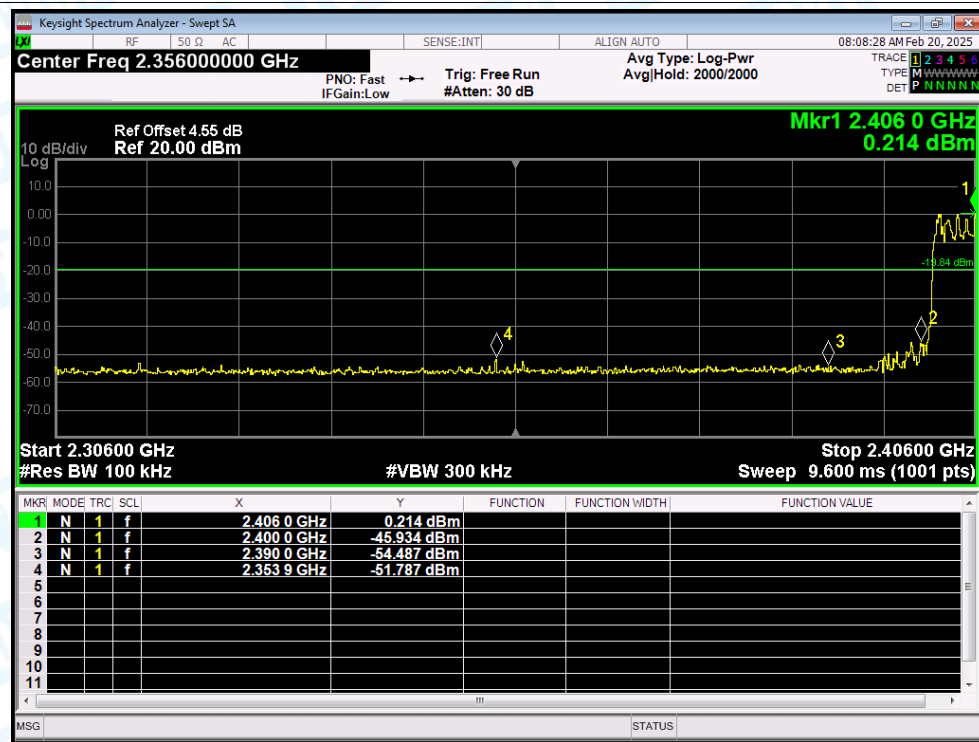




Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



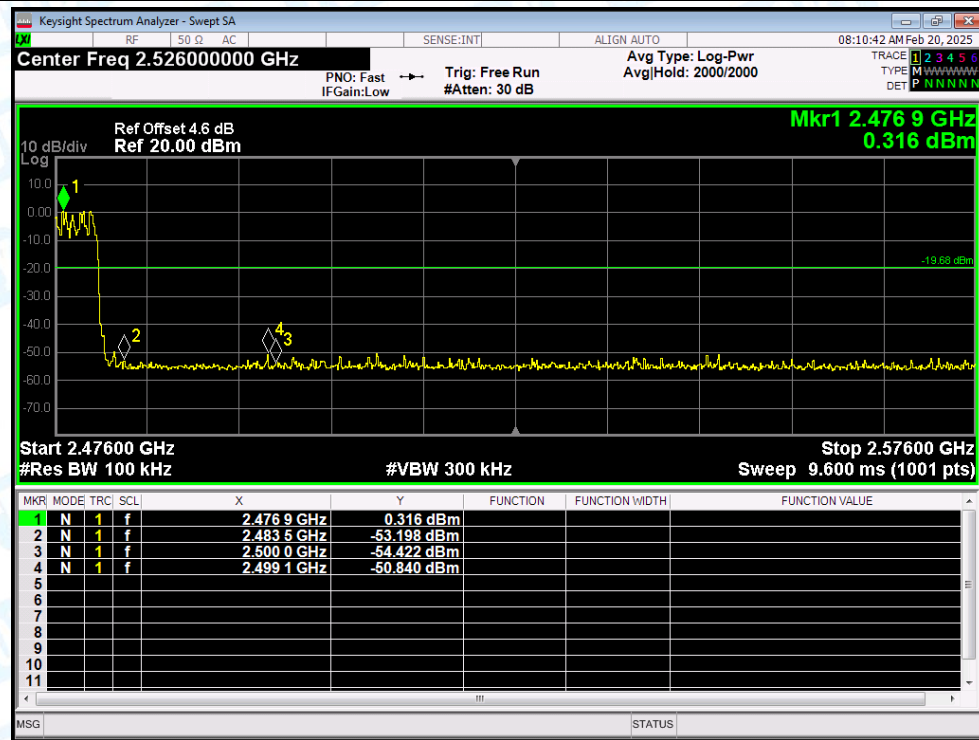
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 3-DH1 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 3-DH1 2480MHz Ant1 Hopping Emission

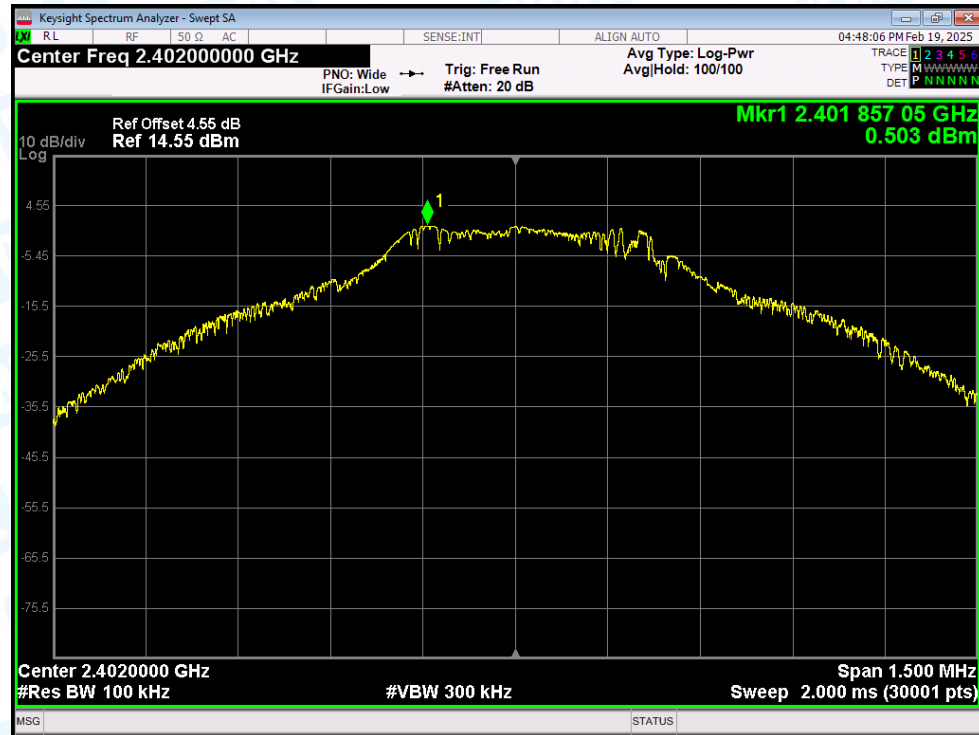


7. Conducted RF Spurious Emission

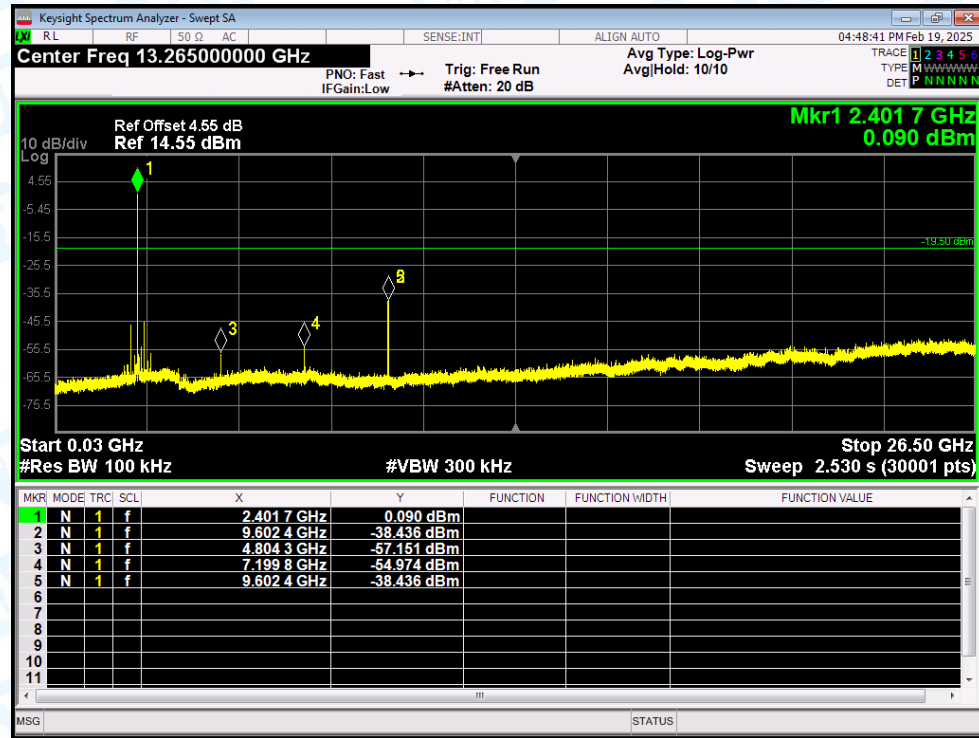
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-38.94	-20	Pass
NVNT	1-DH1	2441	Ant1	-40.41	-20	Pass
NVNT	1-DH1	2480	Ant1	-40.86	-20	Pass
NVNT	2-DH1	2402	Ant1	-38.75	-20	Pass
NVNT	2-DH1	2441	Ant1	-40.4	-20	Pass
NVNT	2-DH1	2480	Ant1	-40.82	-20	Pass
NVNT	3-DH1	2402	Ant1	-38.75	-20	Pass
NVNT	3-DH1	2441	Ant1	-40.3	-20	Pass
NVNT	3-DH1	2480	Ant1	-41.23	-20	Pass

Test Graphs

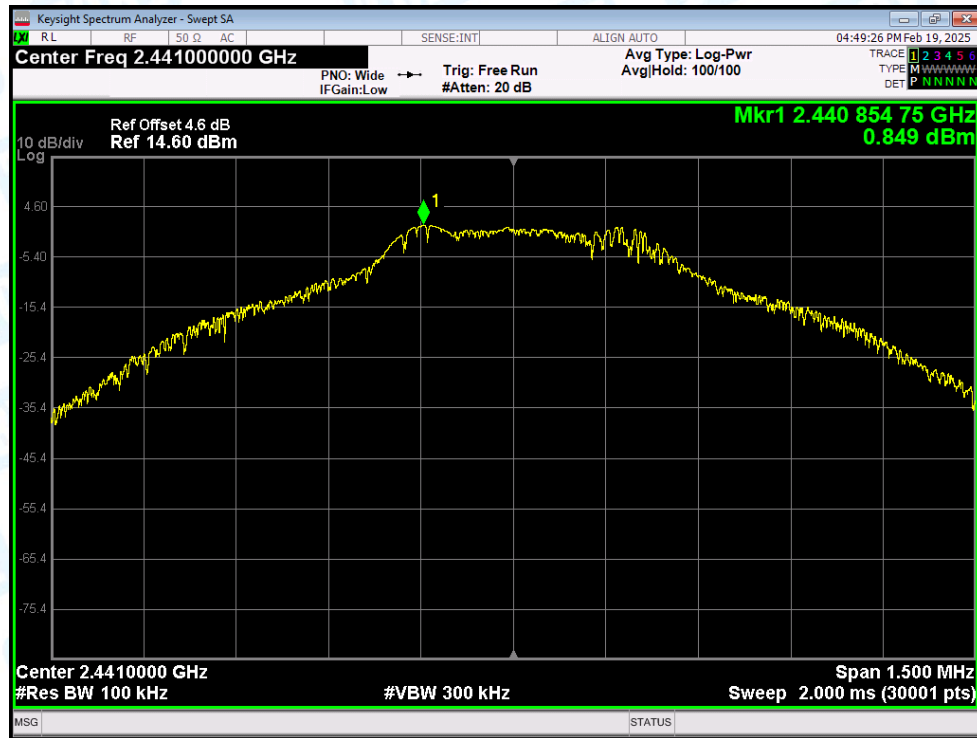
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



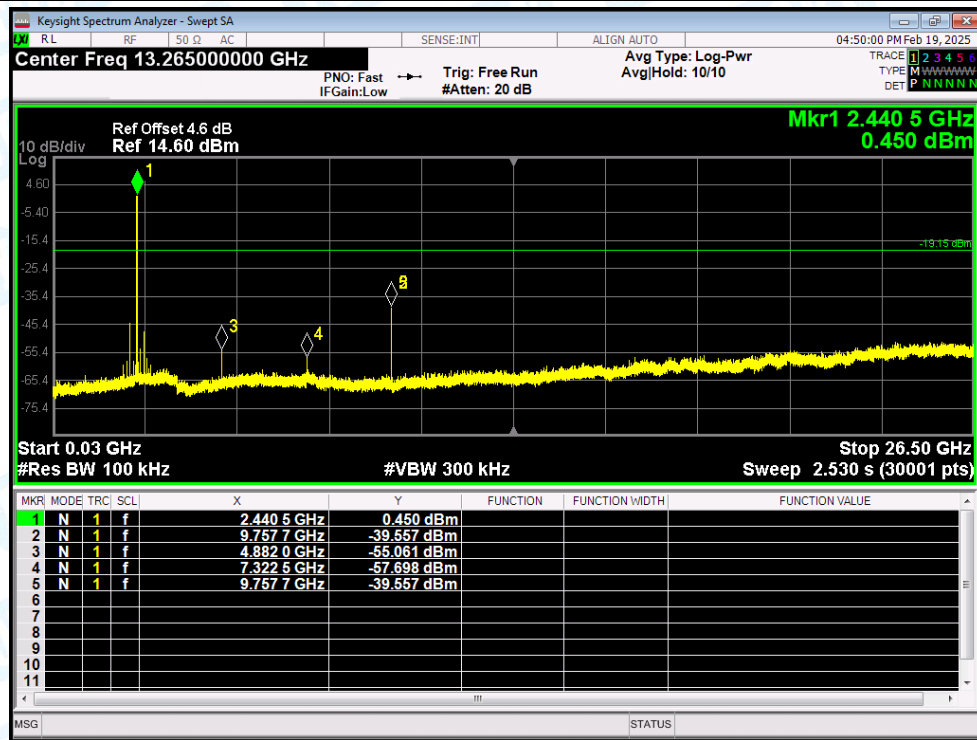
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



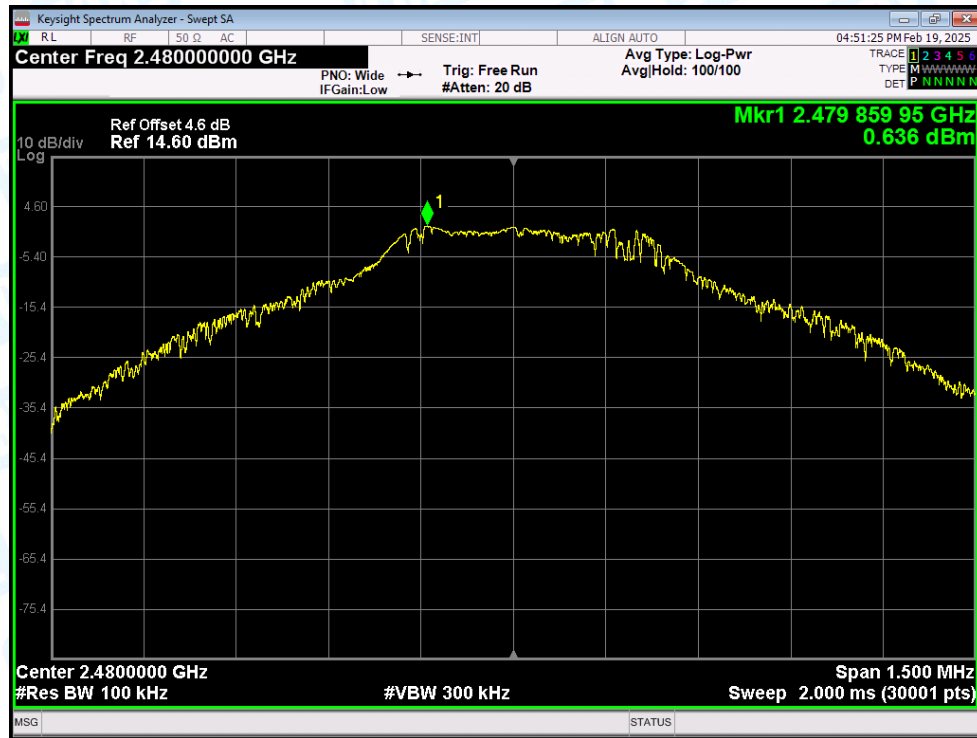
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



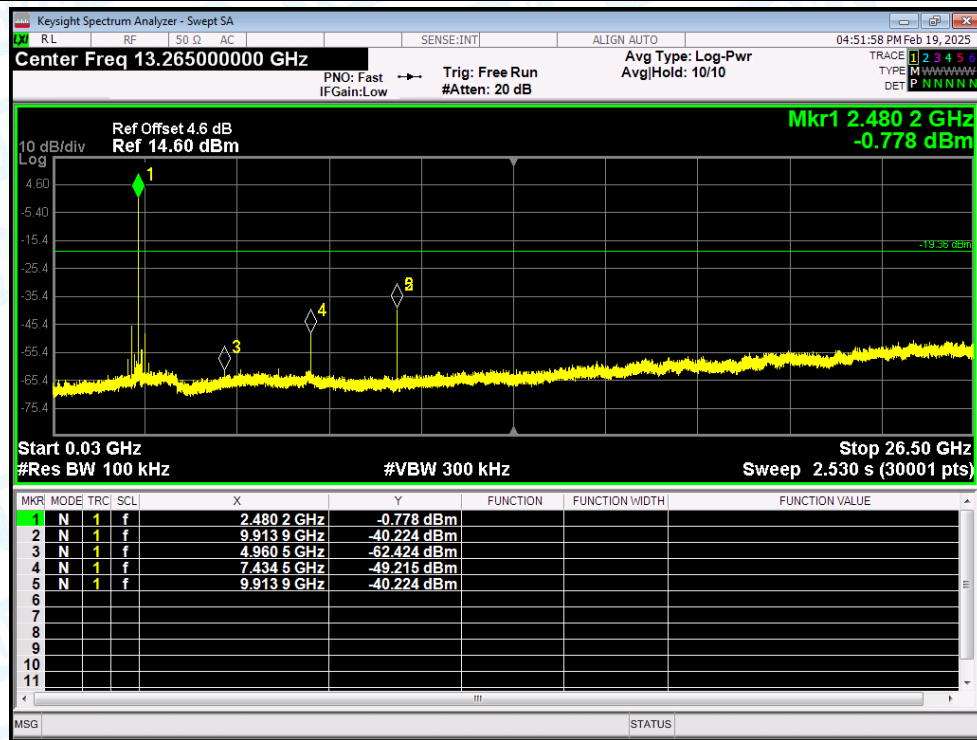
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



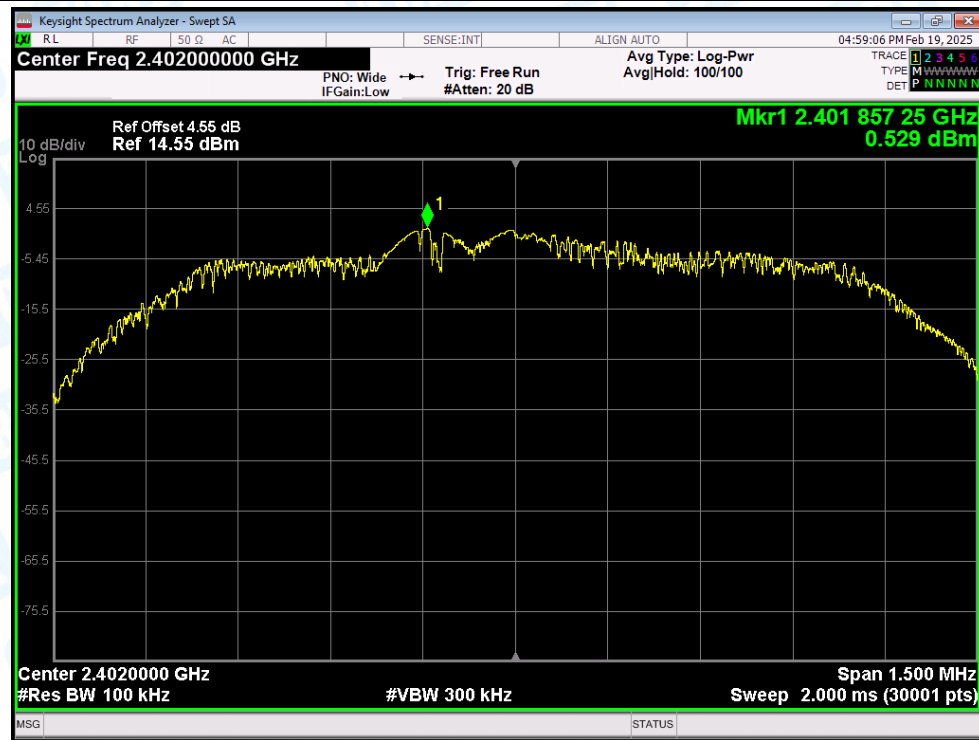
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



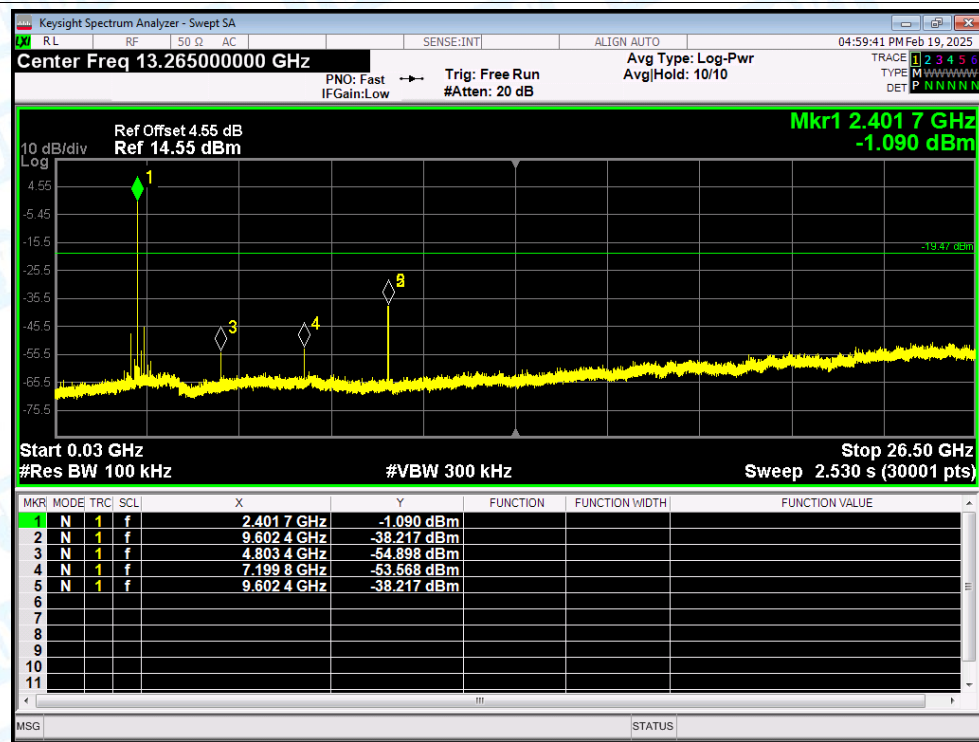
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



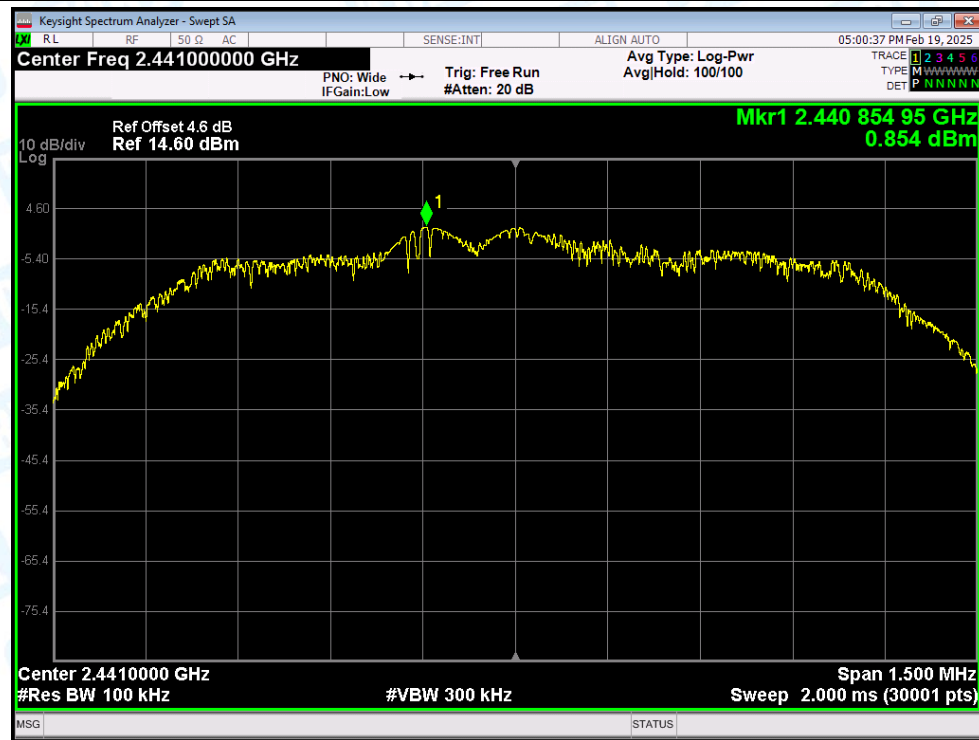
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



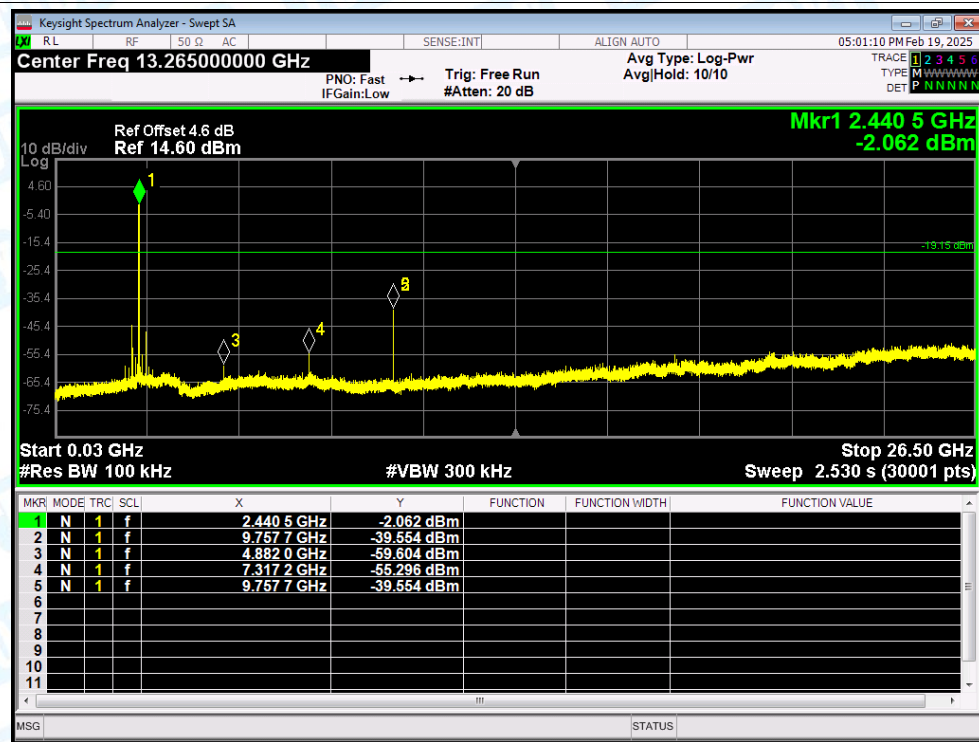
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



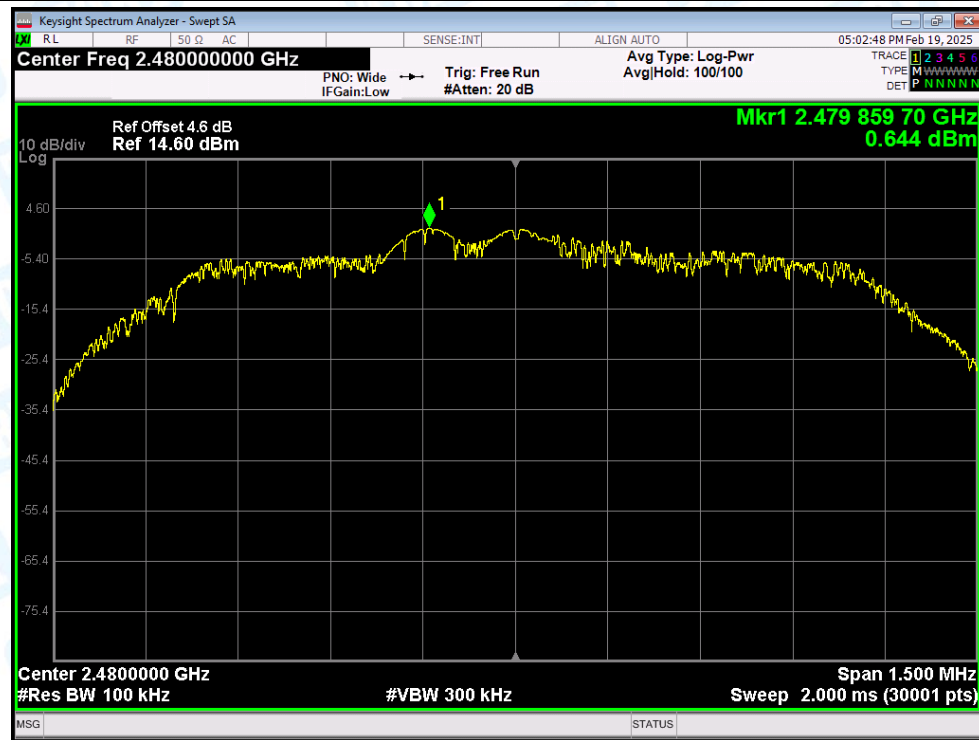
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



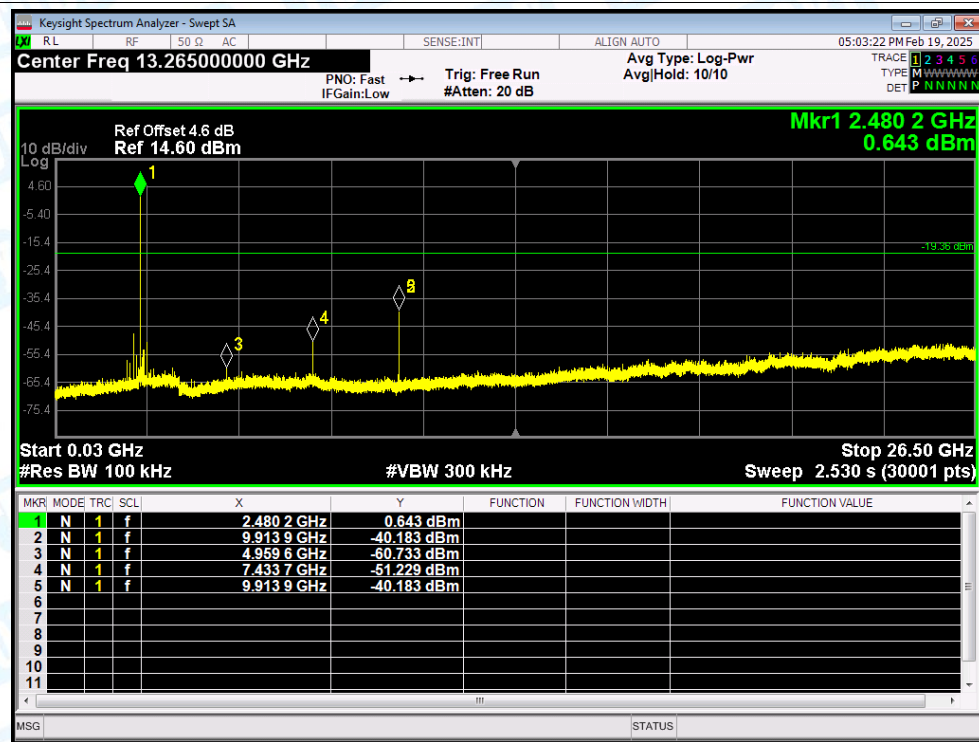
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



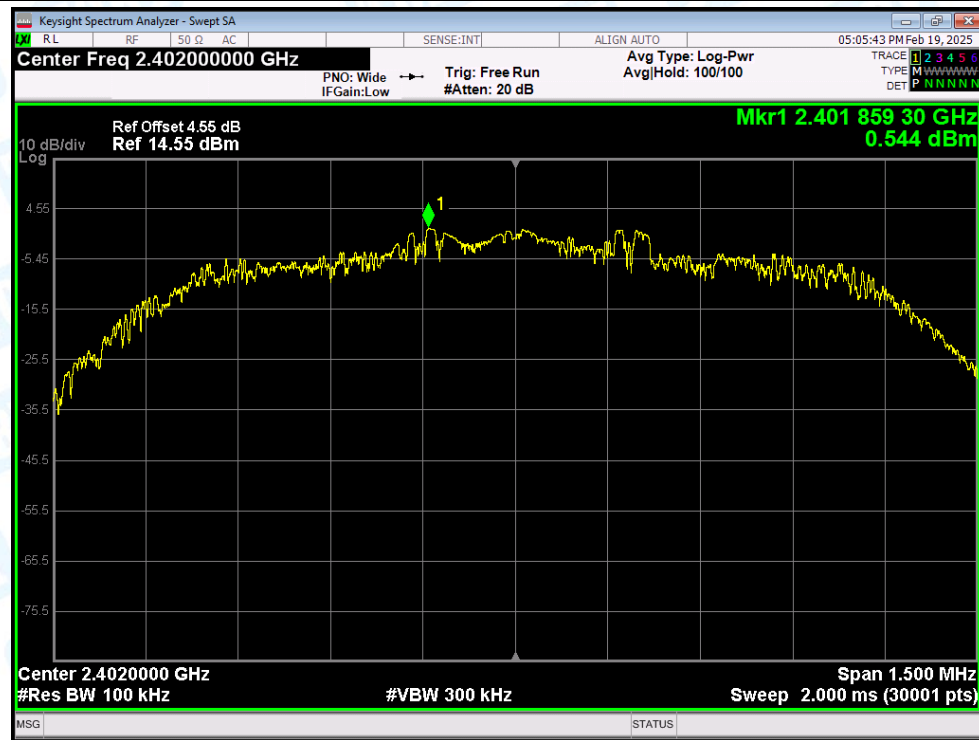
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



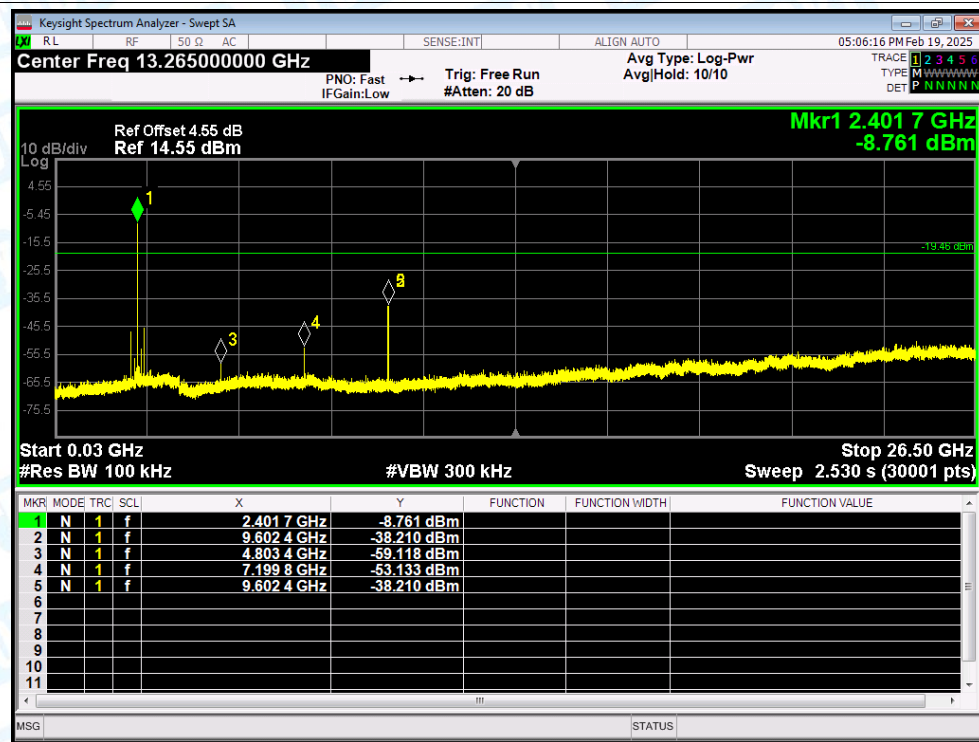
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



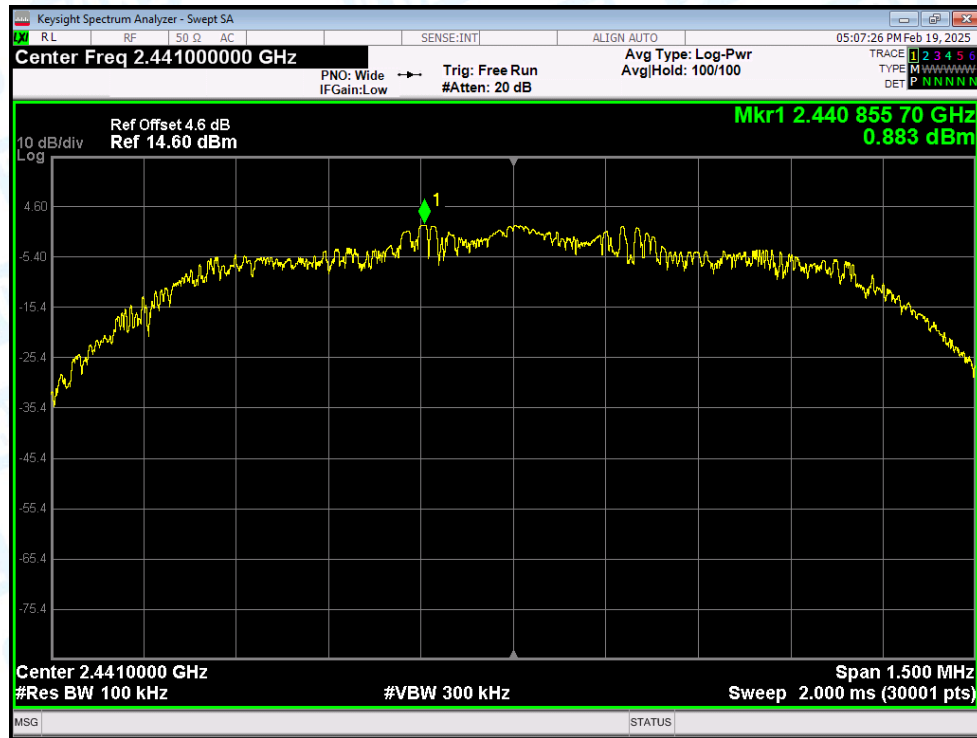
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



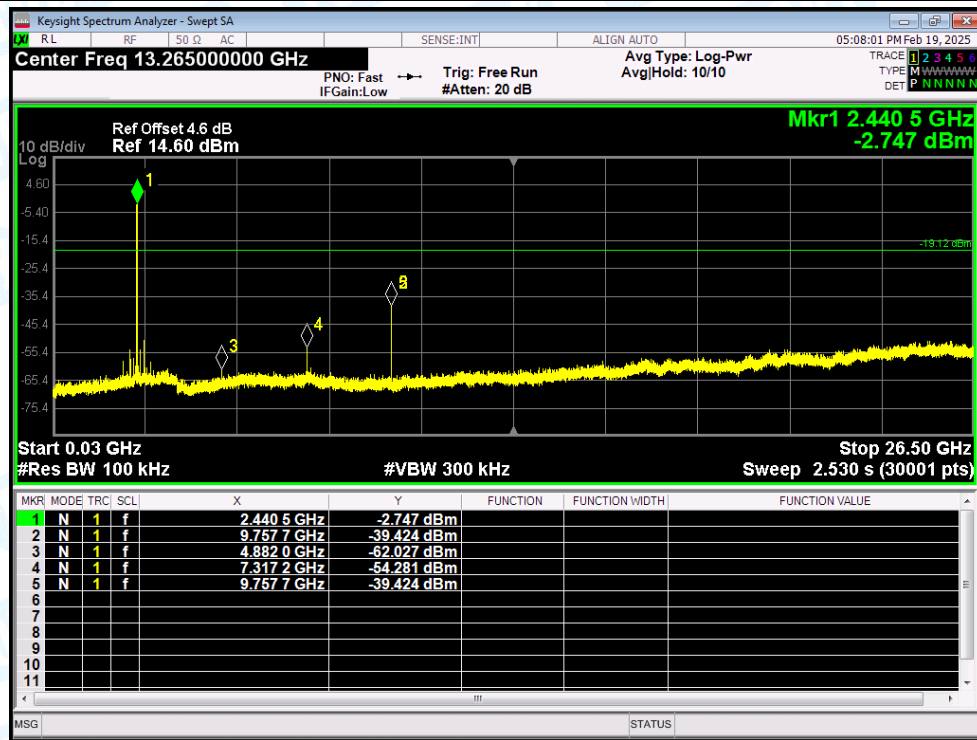
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



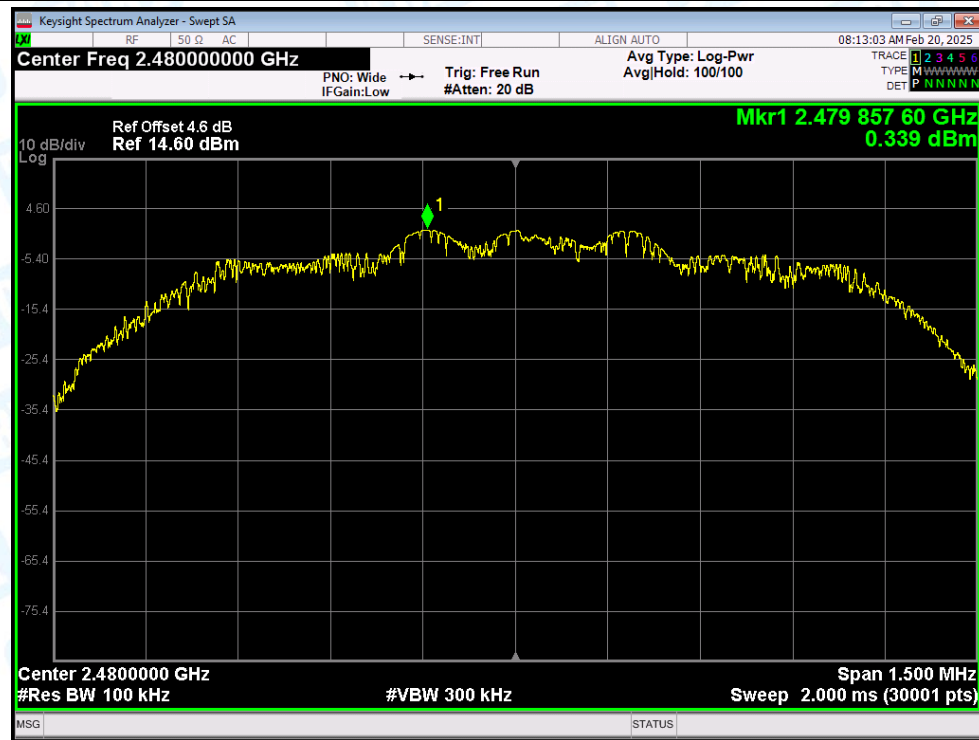
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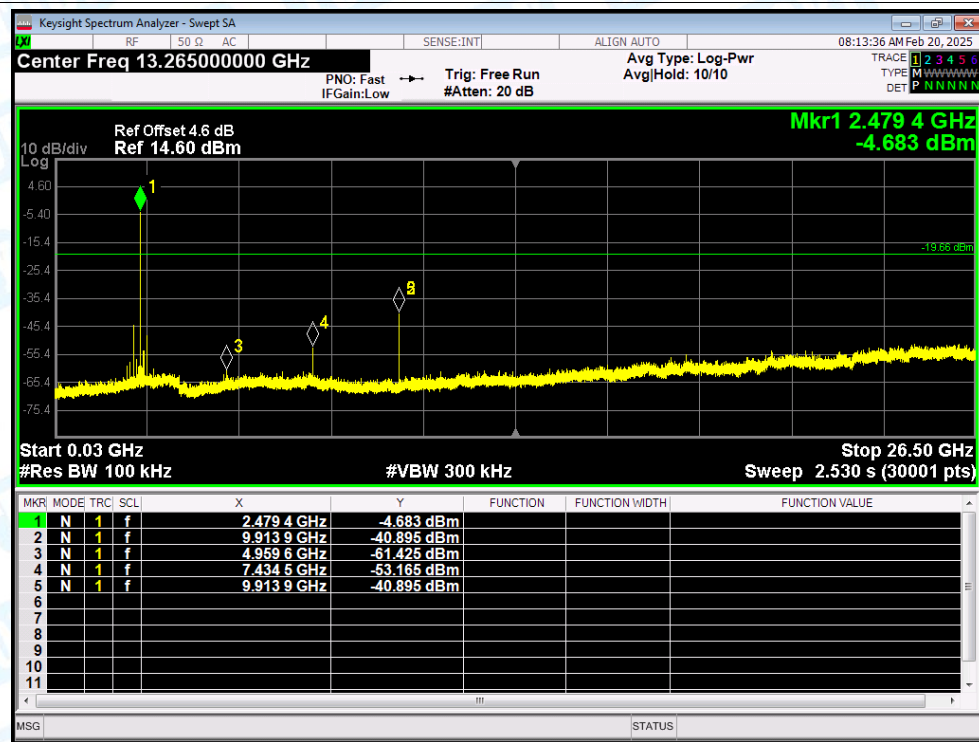
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

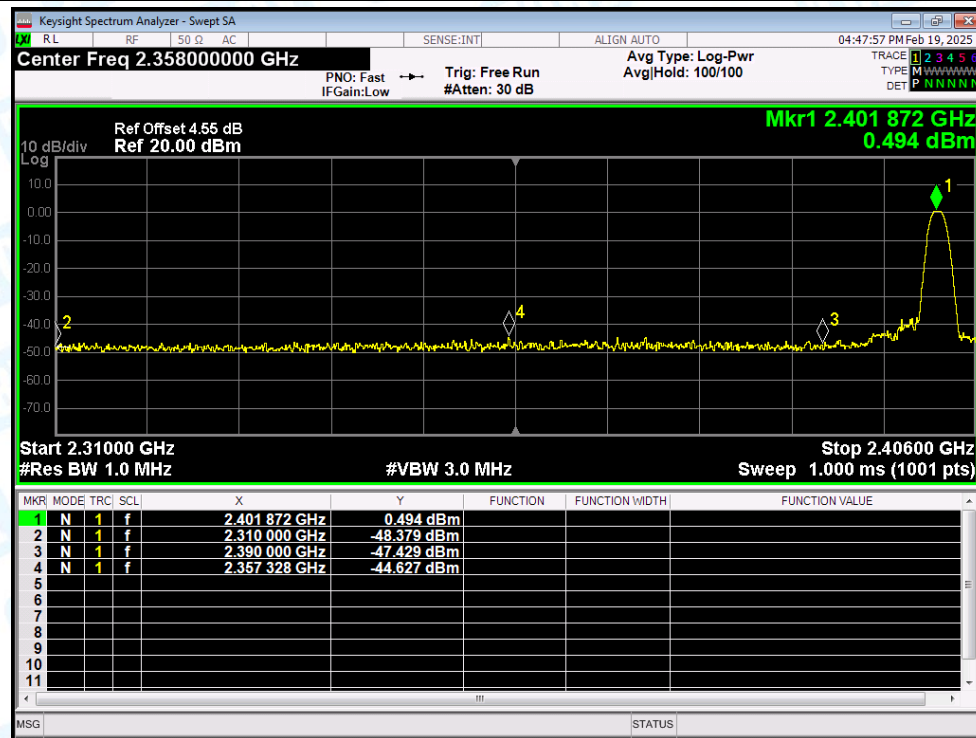


8.Restrict Band

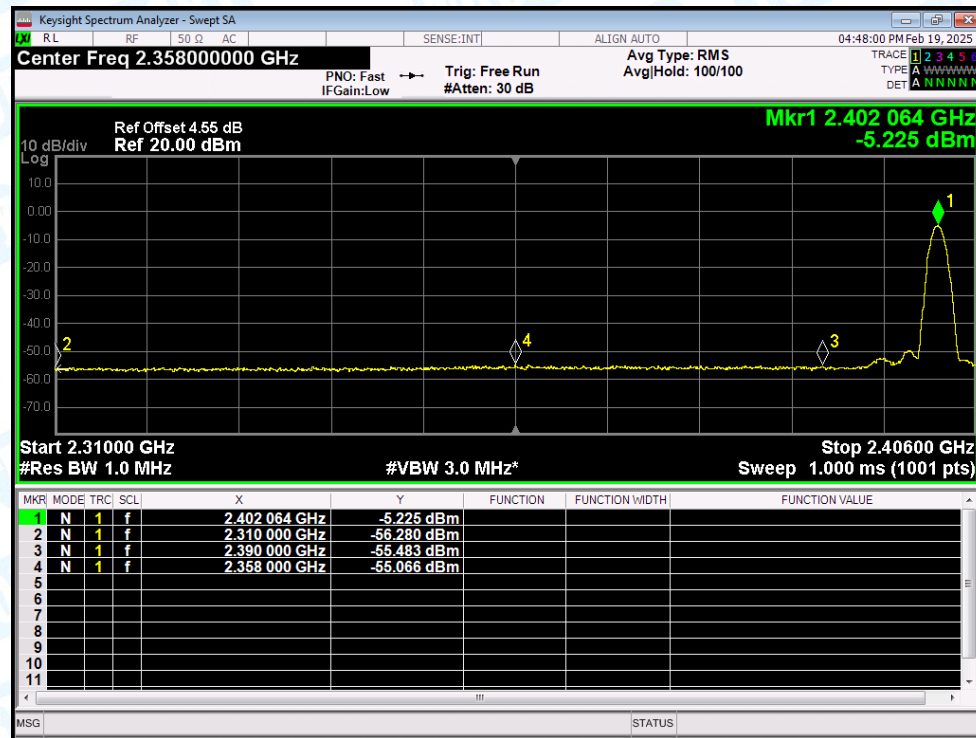
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-48.38	2.7	-	49.58	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.28	2.7	5.17	46.85	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2357.328	-44.63	2.7	-	53.33	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2358	-55.07	2.7	5.17	48.06	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-47.43	2.7	-	50.53	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-55.48	2.7	5.17	47.65	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-43.8	2.7	-	54.16	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-53.79	2.7	5.17	49.34	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.632	-43.28	2.7	-	54.68	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.56	-53.67	2.7	5.17	49.46	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-47.6	2.7	-	50.36	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.39	2.7	5.17	47.74	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-48.09	2.7	-	49.87	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.69	2.7	5.06	46.33	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2356.848	-45.17	2.7	-	52.79	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2360.688	-55.03	2.7	5.06	47.99	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-48.75	2.7	-	49.21	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-56.07	2.7	5.06	46.95	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-44.5	2.7	-	53.46	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-54.04	2.7	5.06	48.98	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.656	-43.56	2.7	-	54.4	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.536	-53.52	2.7	5.06	49.5	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-47.62	2.7	-	50.34	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.29	2.7	5.06	47.73	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-48.92	2.7	-	49.04	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.81	2.7	5.06	46.21	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2381.616	-43.47	2.7	-	54.49	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2369.712	-55.17	2.7	5.06	47.85	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-47.29	2.7	-	50.67	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-55.54	2.7	5.06	47.48	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-45.39	2.7	-	52.57	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-54.04	2.7	4.95	48.87	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.704	-43.7	2.7	-	54.26	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.584	-53.96	2.7	4.95	48.95	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-47.8	2.7	-	50.16	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.08	2.7	4.95	47.83	Average	54	Pass

Test Graphs

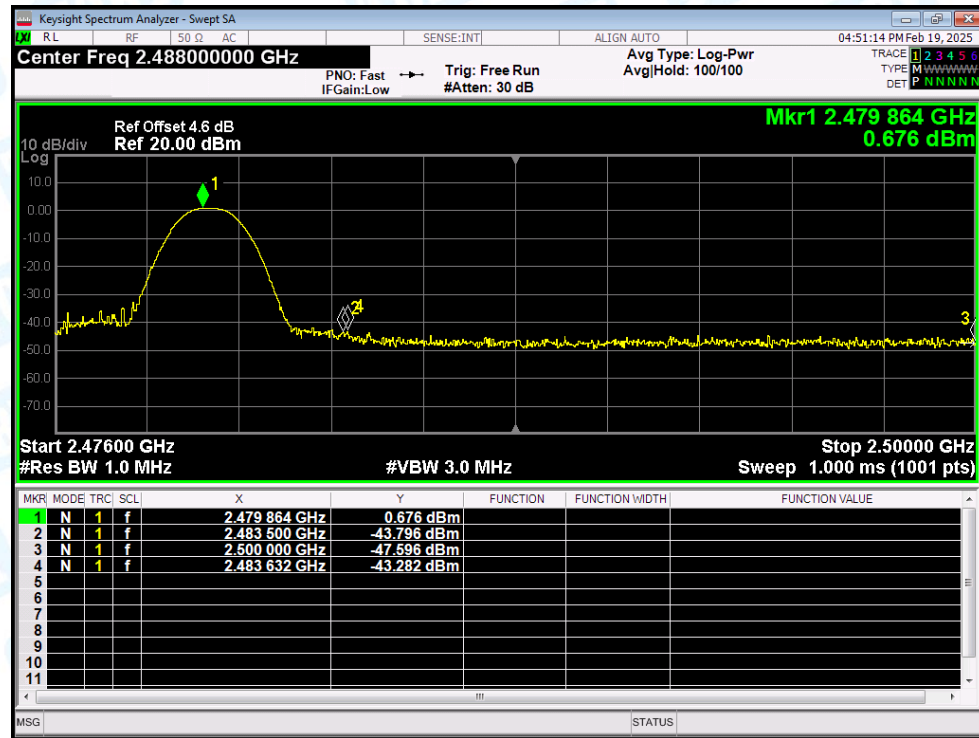
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



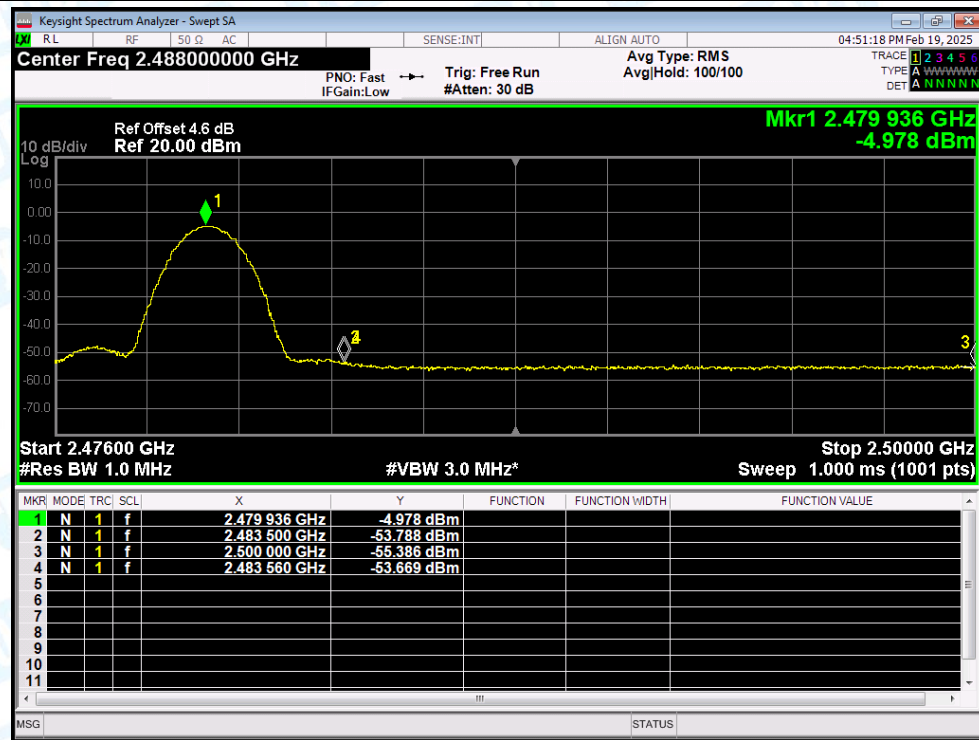
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



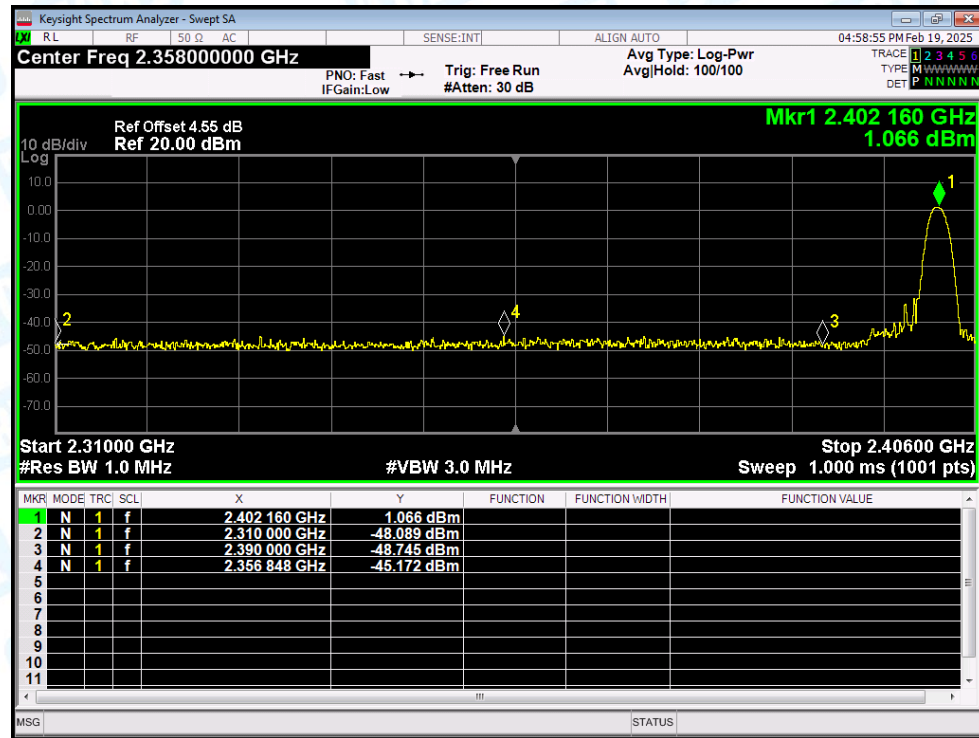
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



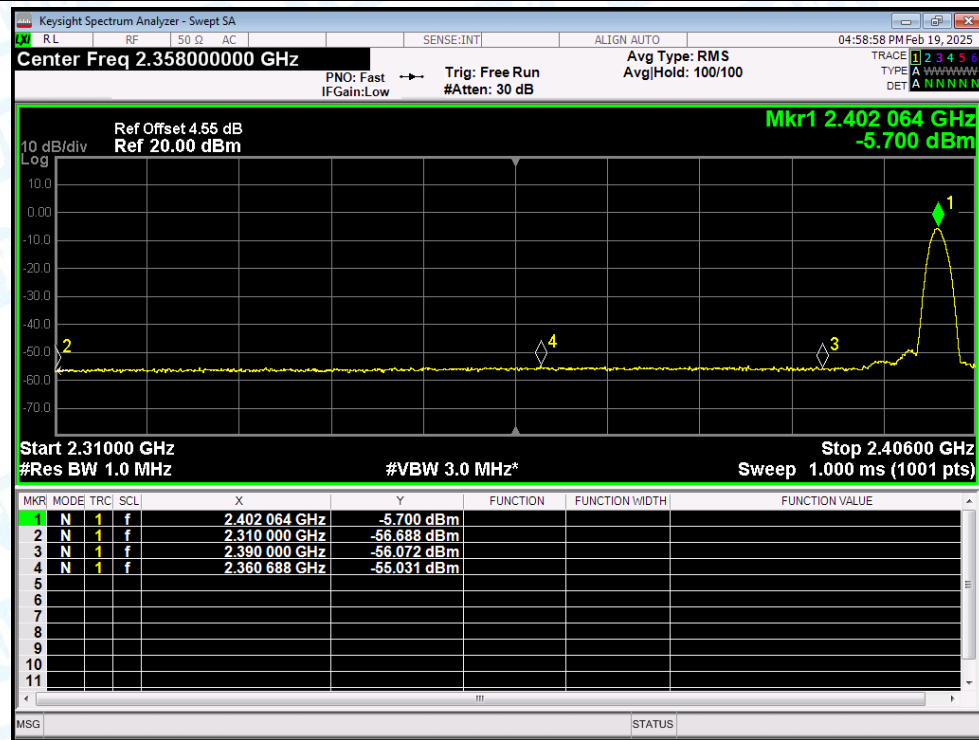
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



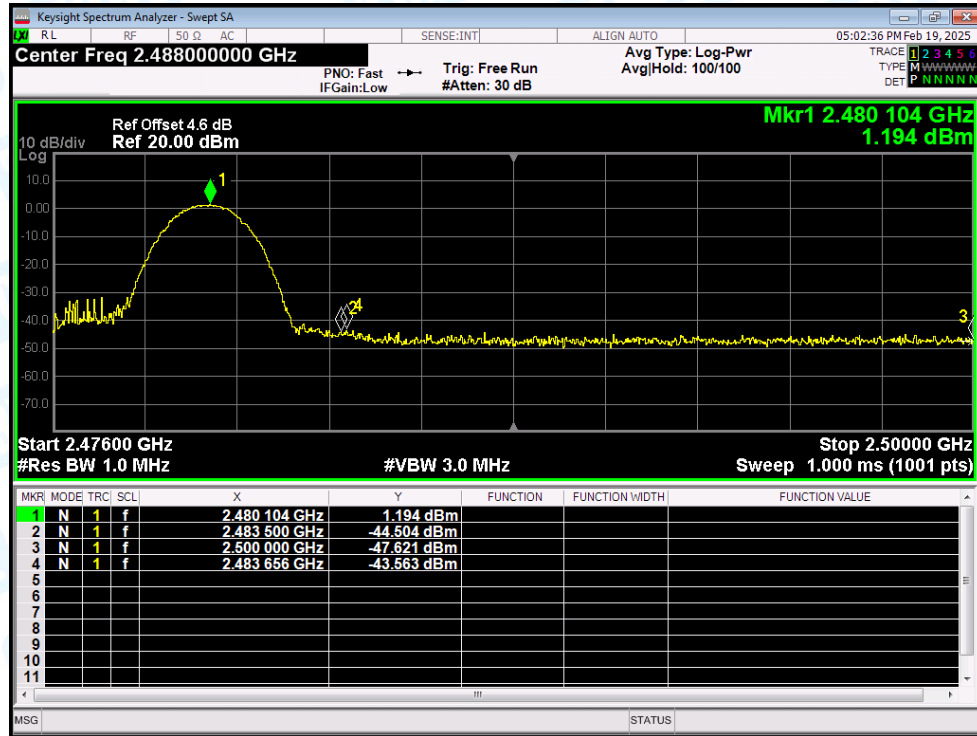
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



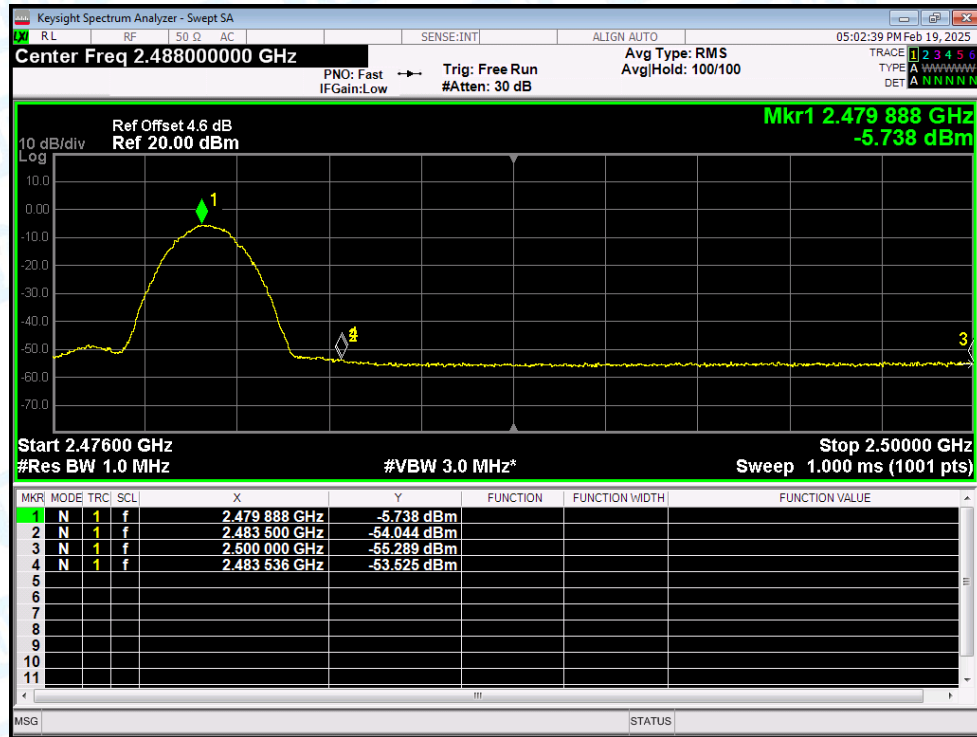
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



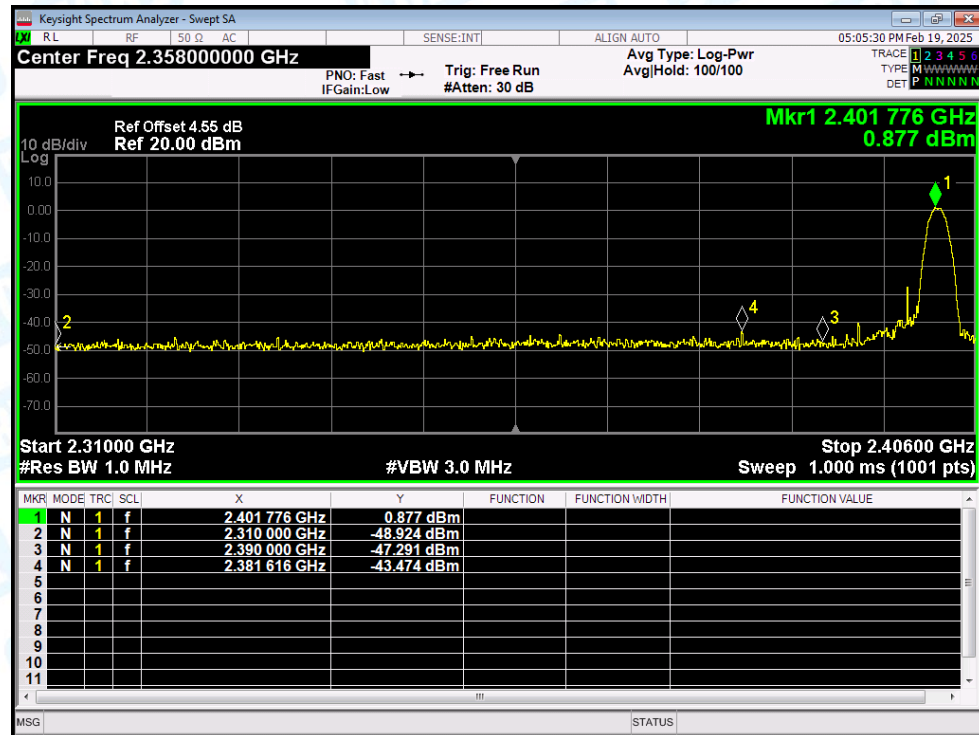
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



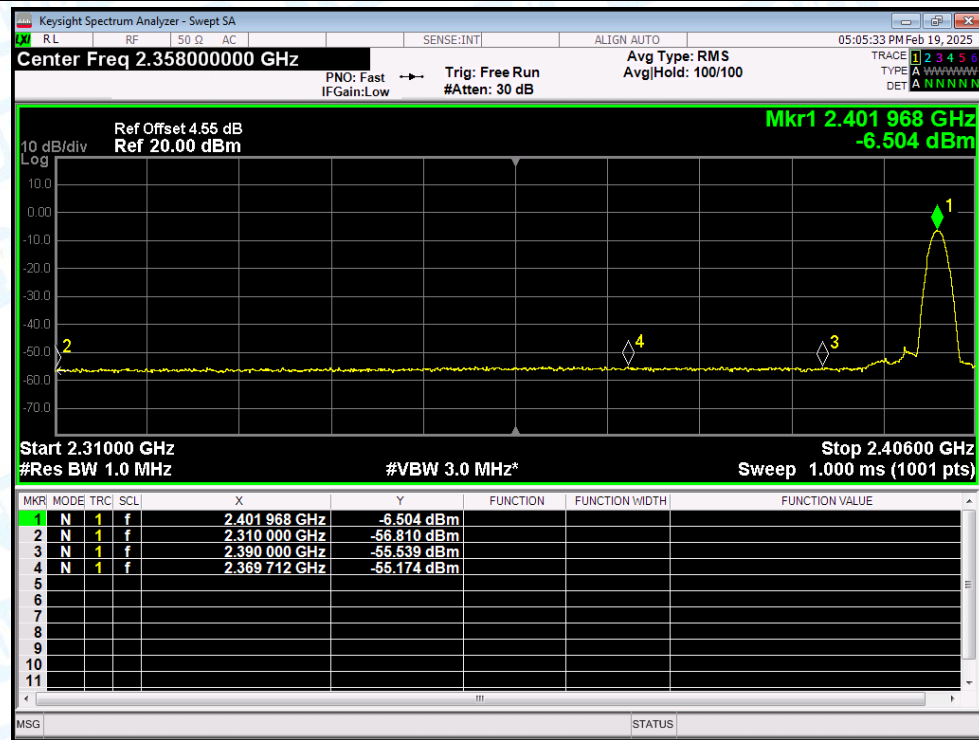
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



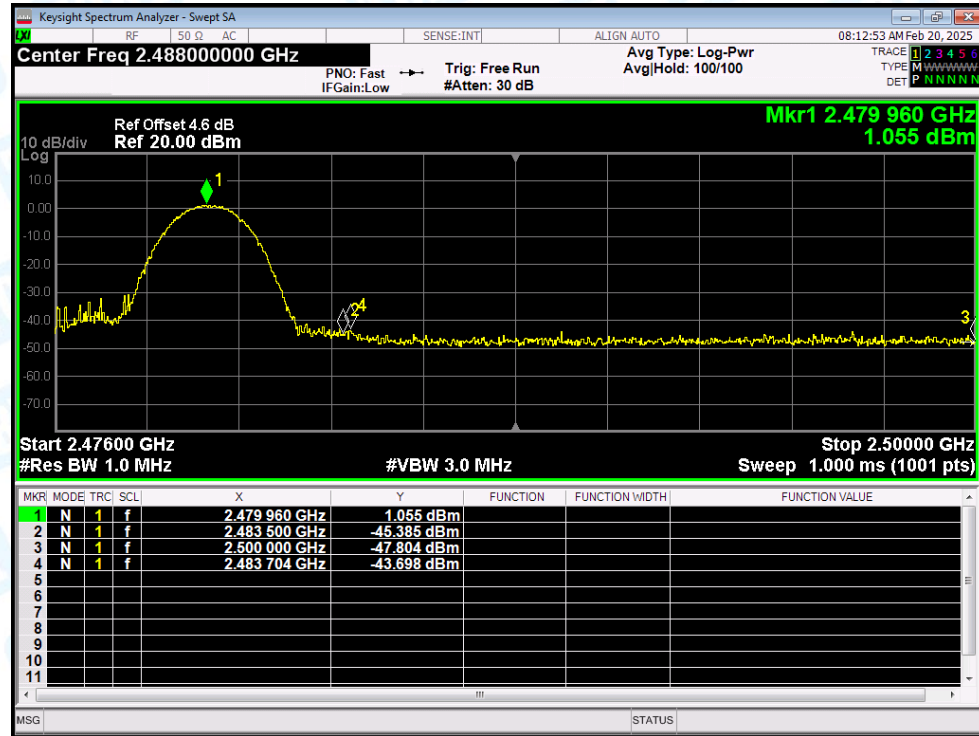
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



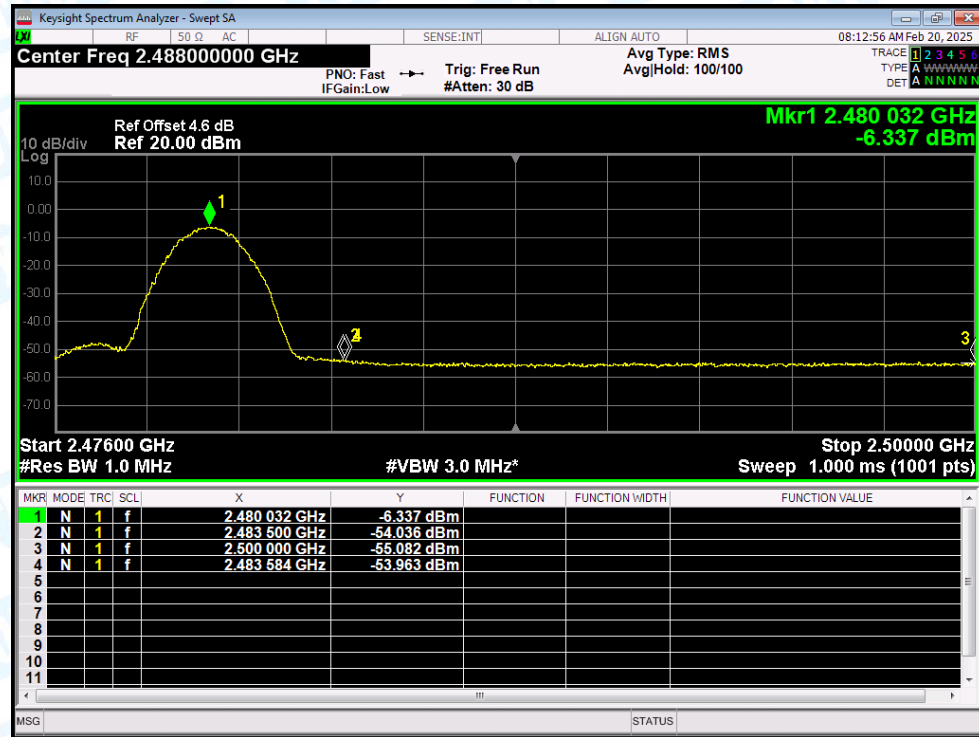
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



Restrict Band NVNT 3-DH1 2480MHz Ant1 No-Hopping Peak



Restrict Band NVNT 3-DH1 2480MHz Ant1 No-Hopping Average

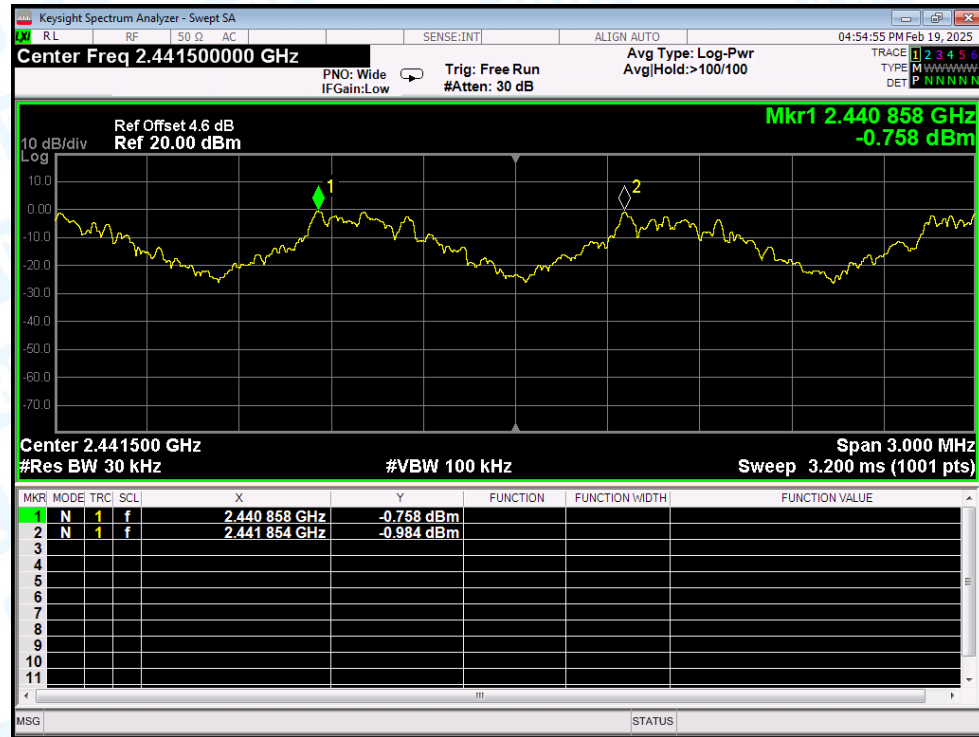


9.Carrier Frequencies Separation

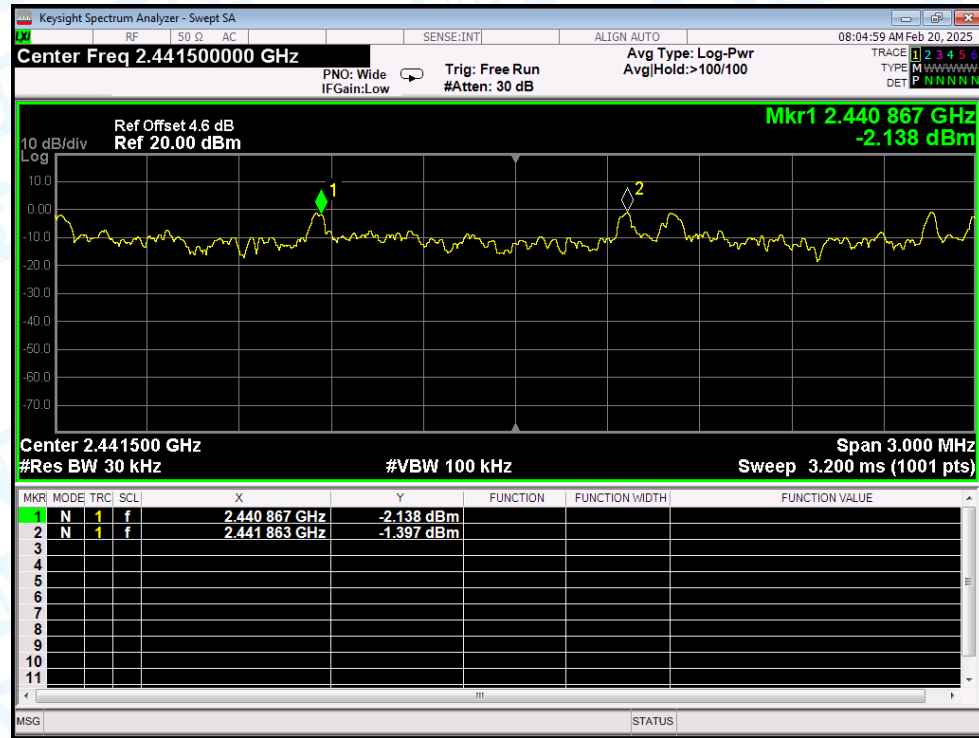
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.858	2441.854	0.996	0.573	Pass
NVNT	2-DH1	Ant1	2440.867	2441.863	0.996	0.025	Pass
NVNT	3-DH1	Ant1	2441.008	2442.01	1.002	0.025	Pass

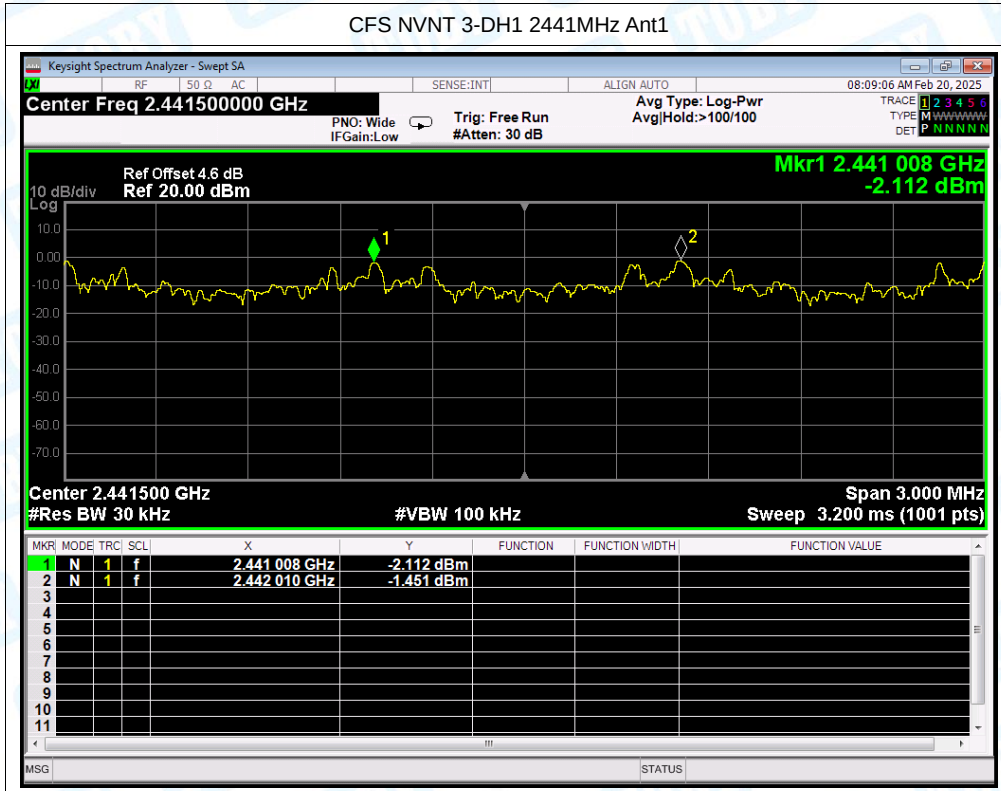
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



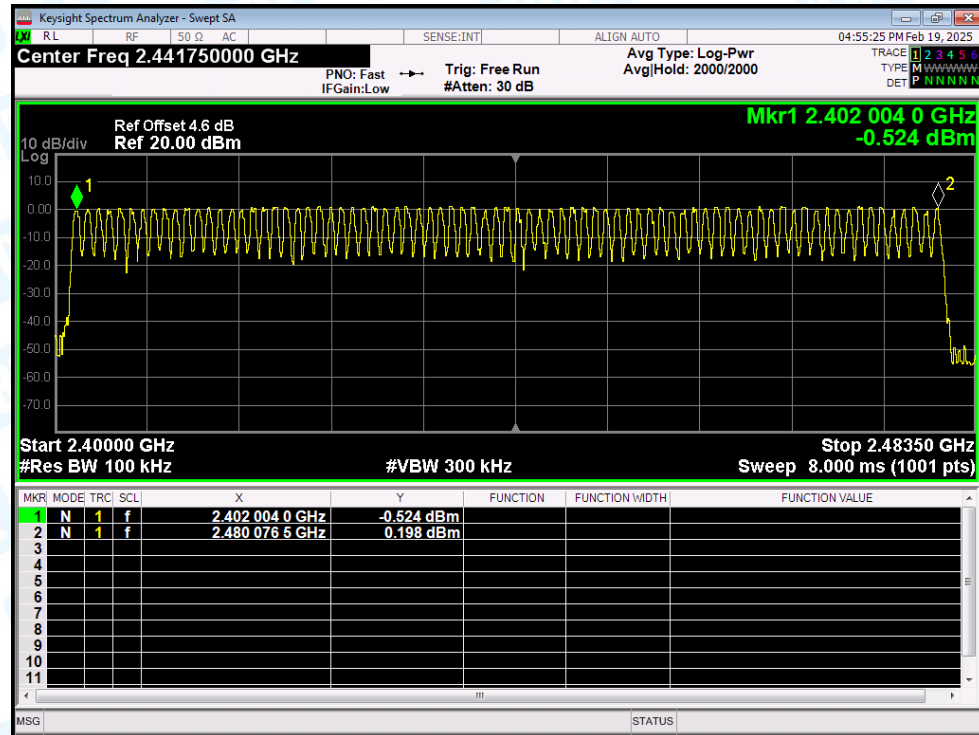


10.Number of Hopping Channel

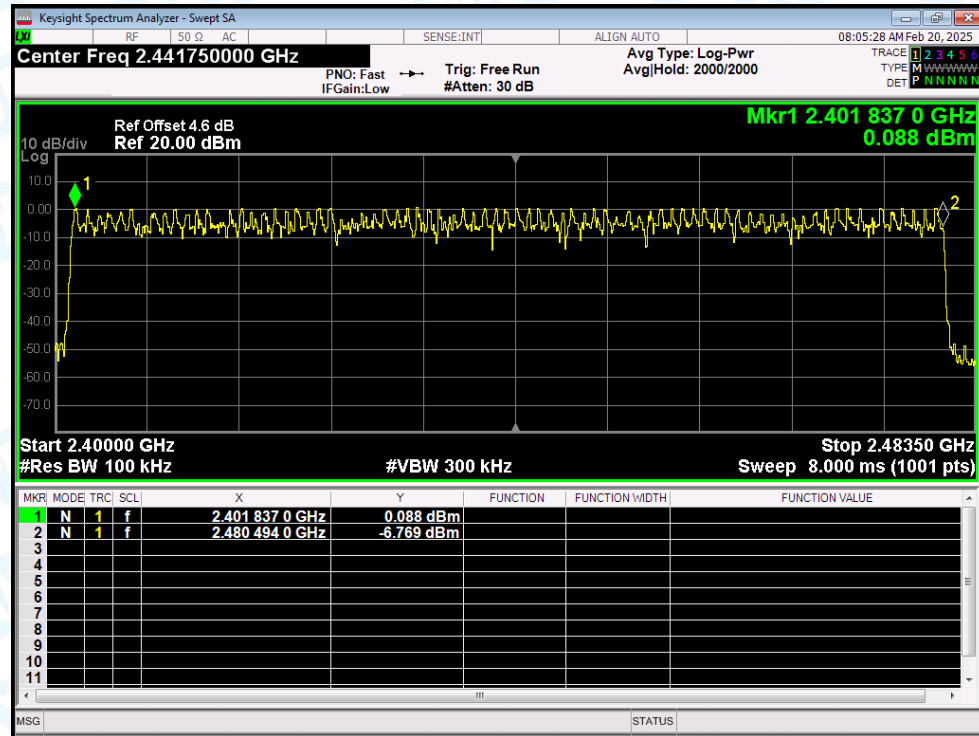
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

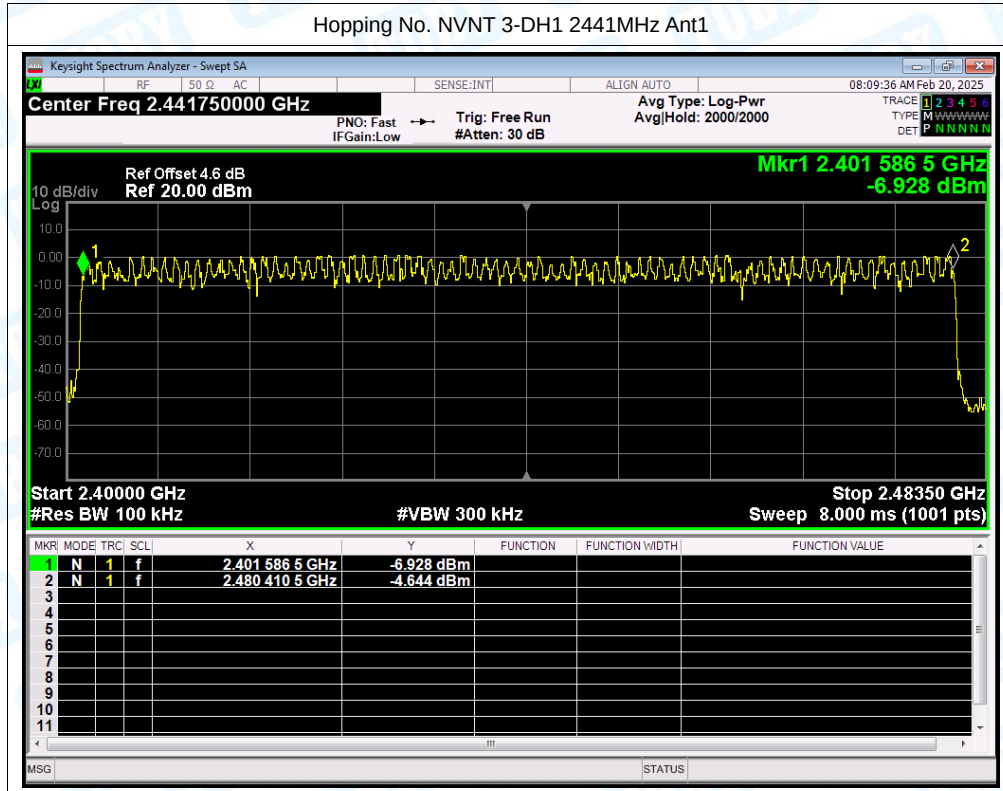
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1

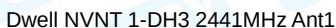




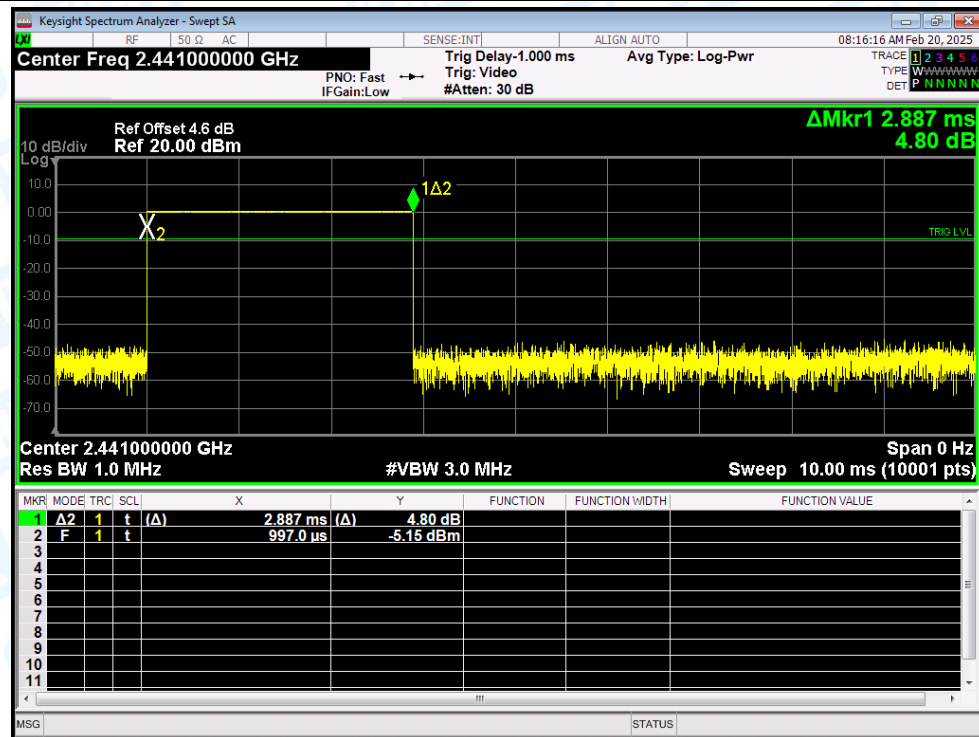
11.Dwell Time

Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.383	122.56	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.639	262.24	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.887	307.947	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.393	125.76	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.644	263.04	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.892	308.48	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.392	125.44	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.643	262.88	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.894	308.693	31600	400	Pass

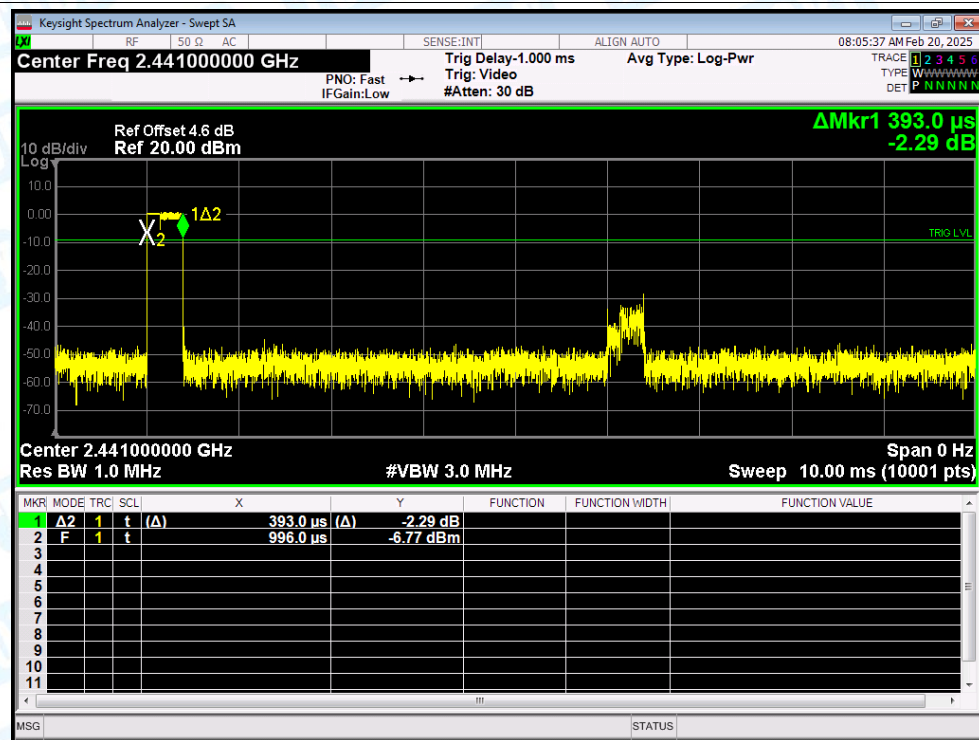
Dwell NVNT 1-DH1 2441MHz Ant1



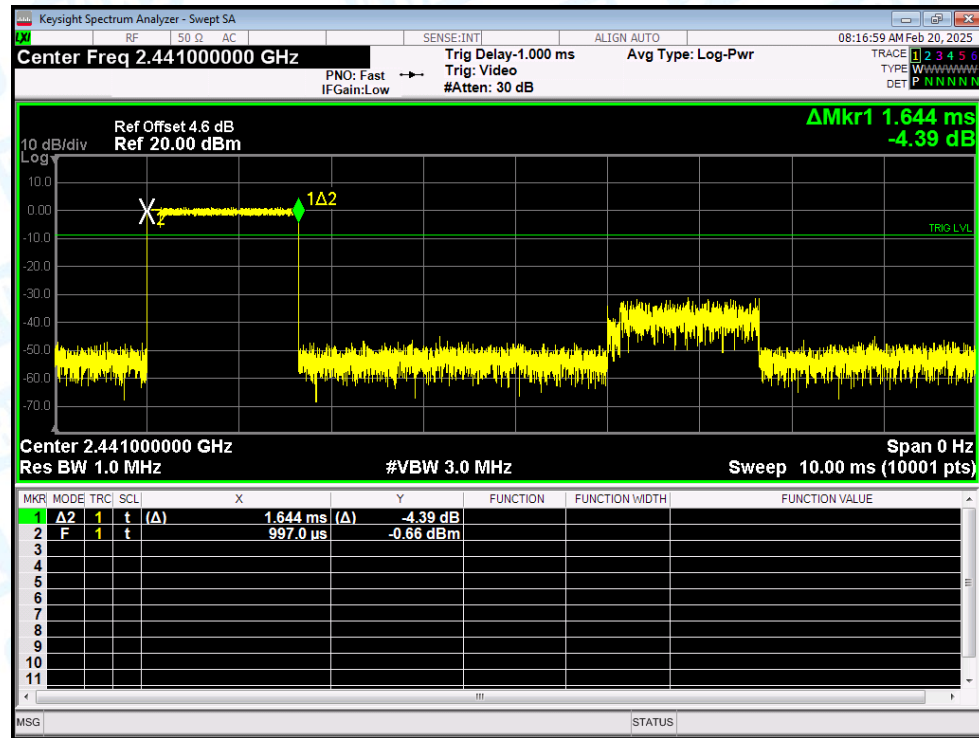
Dwell NVNT 1-DH5 2441MHz Ant1



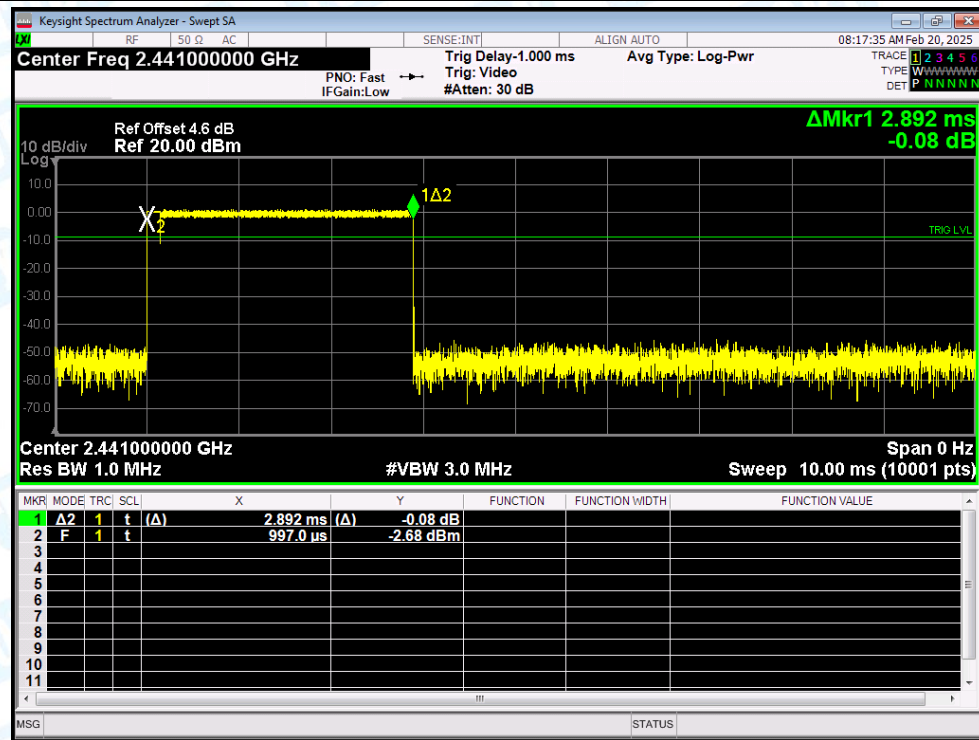
Dwell NVNT 2-DH1 2441MHz Ant1



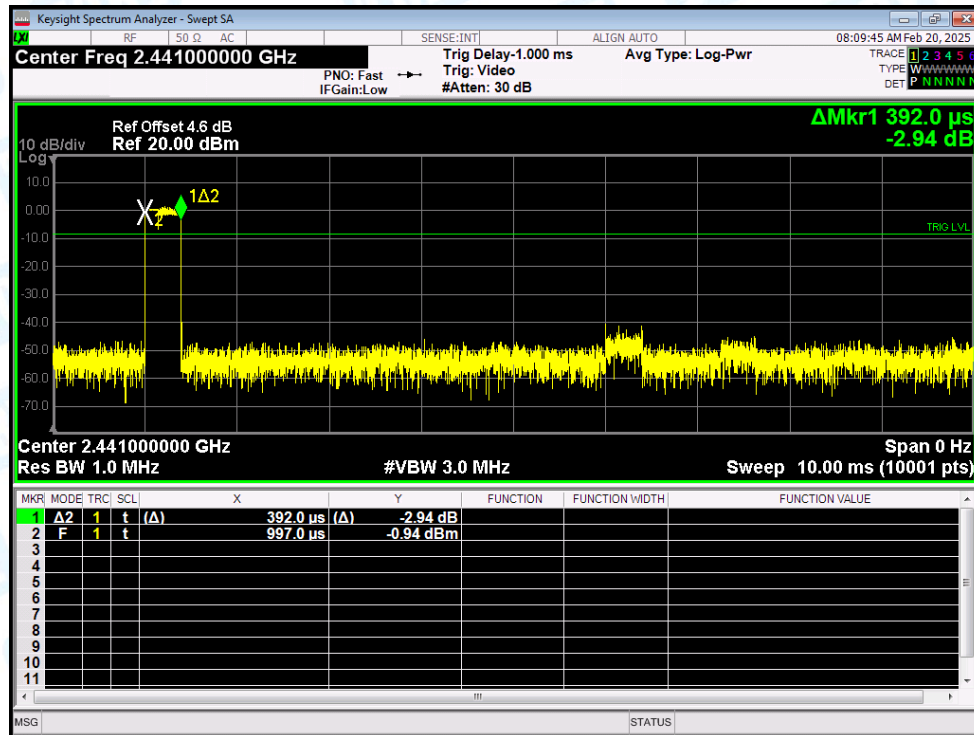
Dwell NVNT 2-DH3 2441MHz Ant1



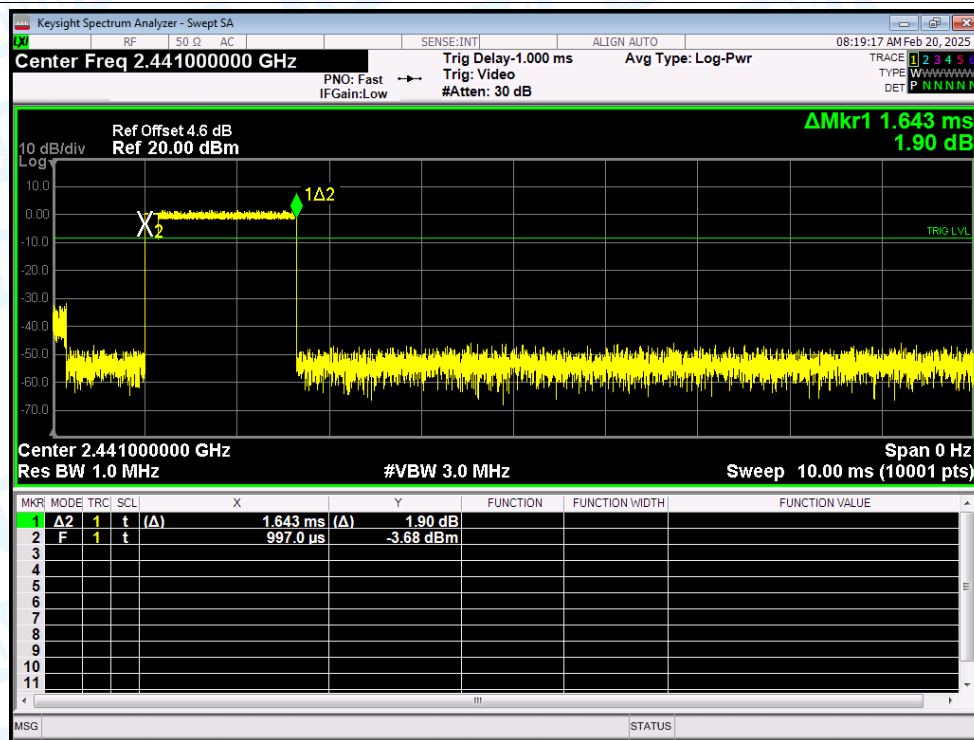
Dwell NVNT 2-DH5 2441MHz Ant1

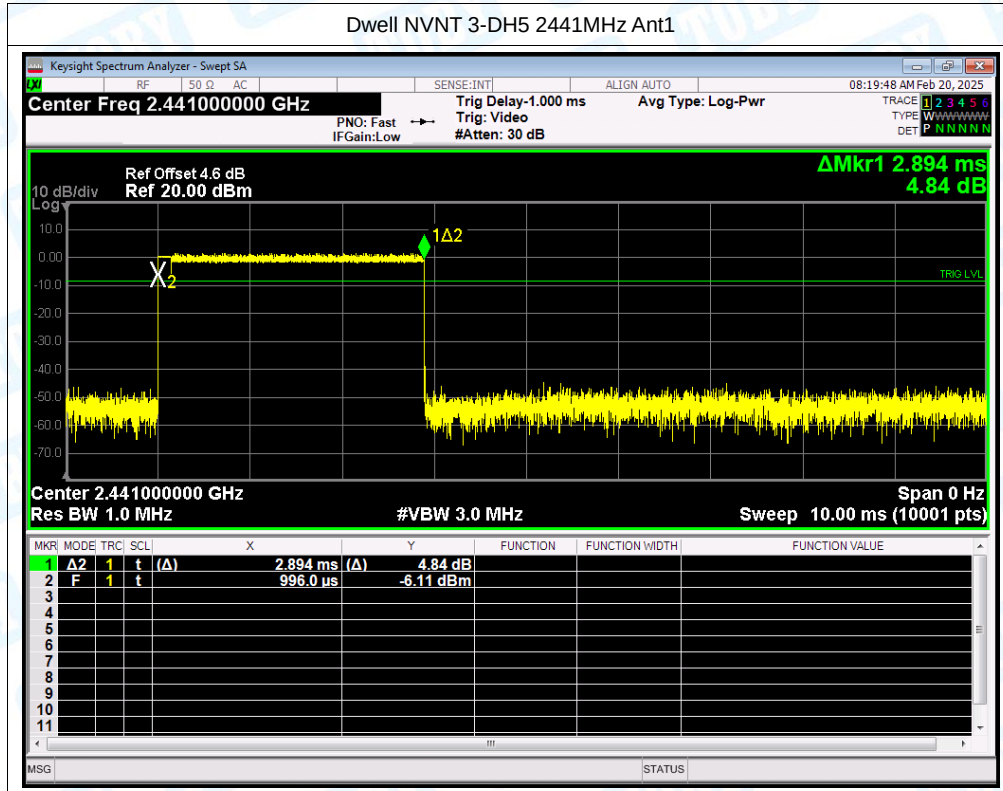


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





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